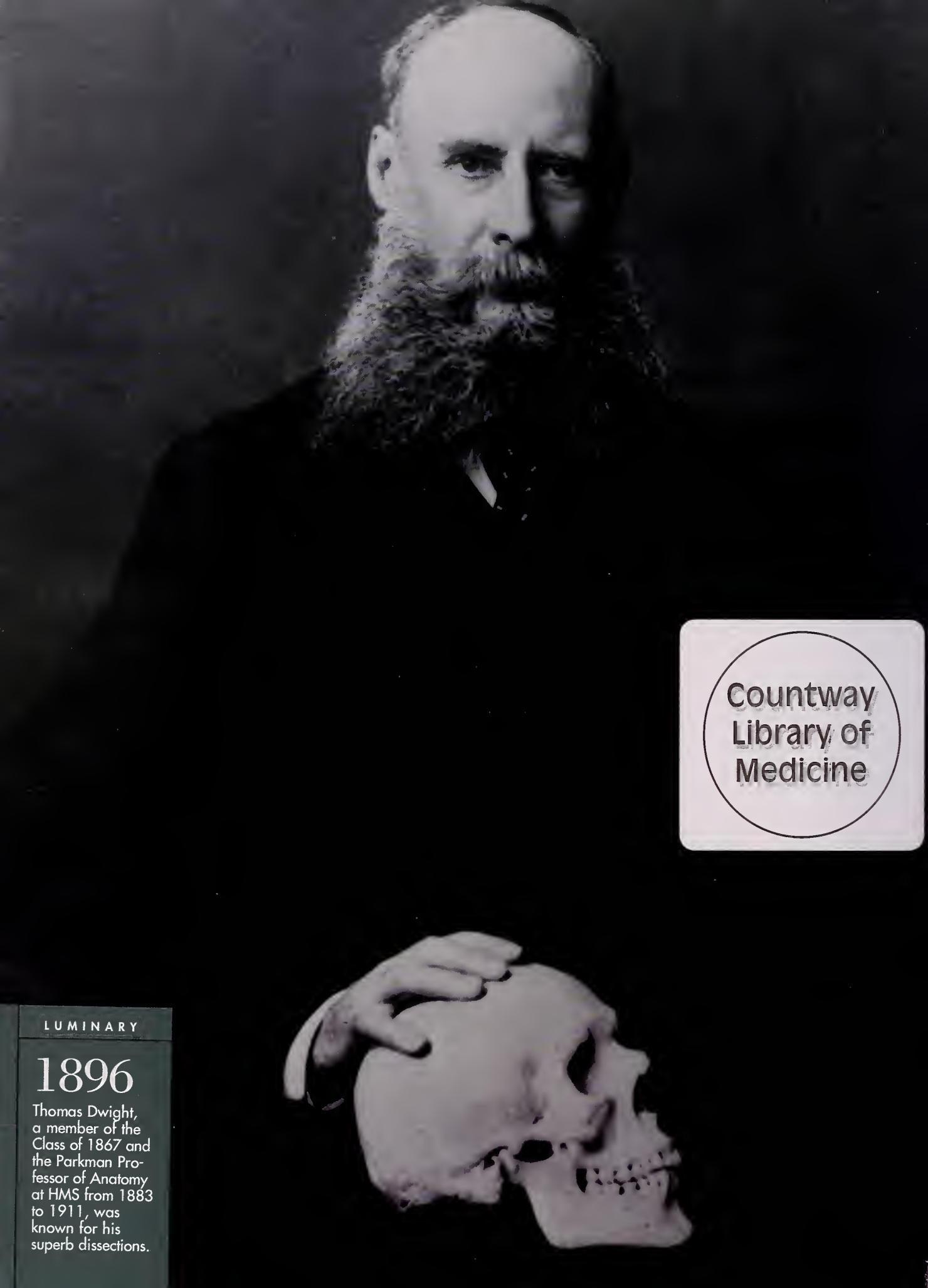
AUTUMN 2000

Harvard Medical

ALUMNI BULLETIN

GRADUATION 2000

For the second consecutive year, HMS has graduated more women than men



LUMINARY

1896

Thomas Dwight, a member of the Class of 1867 and the Parkman Professor of Anatomy at HMS from 1883 to 1911, was known for his superb dissections.

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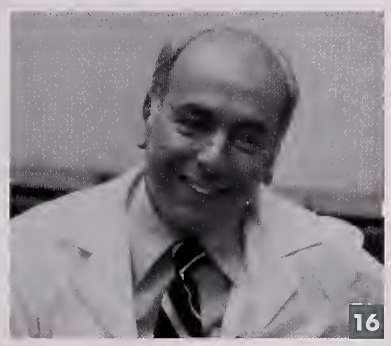

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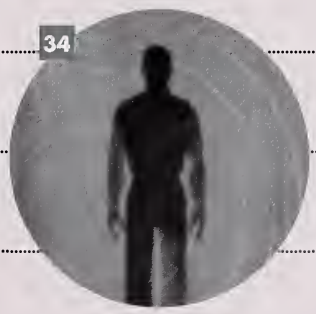

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Cover photograph of Alexy Arauz '00, taken on Class Day 2000 by Liza Green

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In this Issue

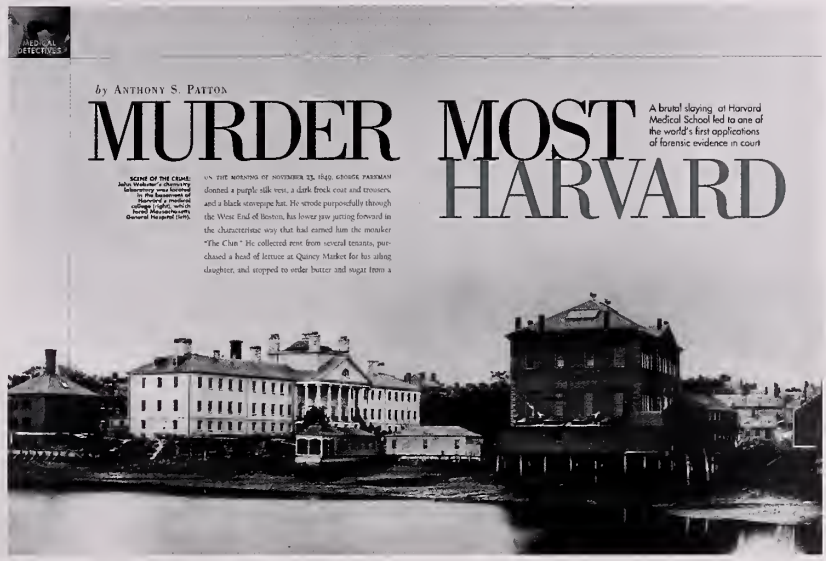
ALUMNI WHO HAVE PLAYED DAN FEDERMAN '53 IN THE SECOND YEAR Show, sources say, once held a reunion. Well, hardly a reunion, but a gathering in the spirit of the man who has tolerated more than two decades of rough treatment from that not entirely benign proceeding. The personal traits and sartorial idiosyncrasies of another Dan (Lowenstein '83) will, I assume, become the annual objects of sophomore caricature, now that he has taken on the role as dean for medical education.

It seems utterly natural that the second-year Federmans would want to assemble. Behind the bow tie securing Dan's collar is someone who has in many ways bound us together during his long but too-short tenure as dean for the various good things that make HMS unique. His ability to remember students and alumni spanning half a century is certainly at the neurophysiological core of what he does. *(Editor-in-chief's warning to Returning Federmans: He hasn't forgotten you.)* He has, as well, a seemingly inexhaustible willingness to connect with others in a curious, courteous, and encouraging way. *(Reassurance to RFs: He doesn't hold it against you.)* And, as he said at the recent commencement, he is committed both to medicine and to HMS as living institutions, with flaws to be fixed and potential still to be realized. *(Question for RFs: Why has he never attempted to abolish the Second Year Show?)* Although he steps down as dean for medical education, he will continue in two other roles combined in a single title: senior dean for alumni relations and clinical teaching. So he will continue as a vital force at HMS, if not so prominently in its theatricals.

This issue of the *Bulletin* is notable for an unusually diverse representation of deans. Barry Bloom of the School of Public Health and R. Bruce Donoff of the School of Dental Medicine shared the Alumni Day podium this year with Joseph Martin of the Medical School. We offer shortened versions of their speeches, as well as excerpts from the talks presented at the Class Day exercises.

A goodbye that we at the *Bulletin* must say is to Associate Editor Phyllis Fagell, who has moved to another city. We will miss her talent, spirit, and humor. As of this issue, Beverly Ballaro moves from assistant to associate editor, and Susan Cassidy newly joins us as assistant editor. We are delighted to have them in these roles at the *Bulletin.*

William Ira Bennett



MEDICAL DETECTIVES

by ANTHONY S. PATTON

MURDER MOST HARVARD

A brutal slaying at Harvard Medical School led to one of the world's first applications of forensic evidence in court

SCENE OF THE CRIME: John Webster's chemistry laboratory was located in the basement of Harvard's medical college (right), which faced Massachusetts General Hospital (left).

ON THE MORNING OF NOVEMBER 23, 1849, GEORGE PARKMAN donned a purple silk vest, a dark frock coat and trousers, and a black stovepipe hat. He strode purposefully through the West End of Boston, his lower jaw jutting forward in the characteristic way that had earned him the moniker "The Clan." He collected rent from several tenants, purchased a head of lettuce at Quincy Market for his ailing daughter, and stopped to order butter and sugar from a

PHOTO: COURTESY OF THE HARVARD MEDICAL LIBRARY IN THE FRANCIS A. COUNTWAY LIBRARY OF MEDICINE

The Janitor Did It

We are indebted to Anthony Patton '58 for his helpful article in the spring issue explaining the generally accepted views of the alleged murder by John White Webster of his old friend and benefactor, George Parkman.

Patton's fine article in turn calls for an explanation to his readers. We seek to understand why he totally overlooks *The Disappearance of Dr. Parkman,* the searching legal review of the case by Judge Robert Sullivan (Little Brown, 1971). This scholarly legal work reviews the evidence, including verbatim testimony presented at the trial. Sullivan reconstructs the trial in his 1971 book, basing his legal analysis on the written record 120 years after an event that now lurks 150 years in the past.

In Sullivan's review, Webster comes off pretty well. As the judge points out, the evidence of Webster's guilt was entirely circumstantial, and some of it exculpatory. This includes the "confession" said to have been composed by the culprit while in jail awaiting execution, and proffered—if not composed—by his newfound friend, the Reverend George Putnam. This confession is much too detailed for verisimilitude, fits the court testimony much too perfectly, and does not have the "sound" either of a professor of chemistry or of a person awaiting execution. We must bear in mind that there was a tremendous drive, indeed a public frenzy, in search of a culprit. This was possibly to be expected, following the murder of a respected, beloved, and generous physician. Webster perfectly filled the bill. So why not a confession?

We also seek some authority for the author's aspersions cast on Webster's activities as a student, "brewing" trouble and riding roughshod over colleagues.

There is not space here to review either all the flaws at the trial, so carefully analyzed by Sullivan, or all the holes in the fabric of reasoning so belatedly called upon to assure guilt.

Webster had a perfect alibi. At the time of the murder, he was in his home in Cambridge, reading to his children. Those present all agreed on this central fact, this "perfect alibi," which the defense counsel chose not to mention. Indeed, on several crucial points in that trial, the defense counsel appears almost to have been swept up in the anti-Webster bias that produced such a public outcry.

The motive for the murder was said to have been an unpaid debt owed by the accused. This debt amounted to $1,500, quite a large sum in those days, even allowing for the down payment Webster had made to Parkman that afternoon. Would a respectable, quiet, and studious Harvard professor of chemistry kill an old friend for even a rather large debt that he owed the friend? When an unpaid debt leads to a murder, one looks to the creditor, not the debtor, as a likely culprit.

There were no witnesses. We are asked to believe that a career chemist could dismember a corpse in just a few hours and then appear in perfect health and of beneficent countenance but minutes later. The only other person in the immediate ambiance was Ephraim Littlefield, the janitor ("diener") in the anatomy course, whose regular job was to obtain, dismember, and then dispose of anatomical specimens otherwise known as human corpses.

The remains were stuffed down Webster's privy and found there, not surprisingly, by none other than Littlefield. He found them by digging through the wall of the privy, from the adjacent Charles River mud. How did he know for certain just where to chisel this laborious hole in the privy "vault" brickwork? How was it that after this difficult labor on a long brick wall, he came directly upon the remains? If it was his wish to point the finger at Webster, what better than placing the corpse in Webster's privy—yet a little embarrassing to find it so readily.

The blow that killed Parkman was said to have been delivered by a grapevine stump, on the side of the head. Were any skull fractures found? None was mentioned. That part of the head was said to have been consumed by fire. And yet—some parts of the head survived, including the jaw. The dentures, allegedly those of the deceased, were intended both for the maxilla and the mandible.

William Morton and Nathan Keep were two dentists already well-known because of their role in the discovery of ether anesthesia four years previously, and the already smoldering controversy

on that topic. When first asked about this matter of the murder, they stated (as expected) that the dentures fit the jaws of the deceased absolutely perfectly. A short time later, however, both dentists admitted that these dentures might have fit several other people quite well.

Professor Oliver Wendell Holmes was an old friend of the deceased and yet, when called upon, he failed positively to identify the remains as those of Parkman. Furthermore, Holmes confirmed Morton's uncertainties about the dentures and agreed that they might fit many mouths.

The defense clearly established several points. First, Webster was a kindly man not given to violence. The reader of Patton's account naturally wonders where he obtained all that "dirt" about Webster's alleged misbehavior as a student many years before. A bibliographic reference might again be helpful. Second, Webster acted quite normally to the several who saw him and talked with him during and after the time of the murder, and prior to his arrest. And third, several people had seen the late deceased strolling about Boston some hours after his alleged murder by Webster.

In Sullivan's legal analysis, the most damning portion of this flawed jurisprudence was the instruction of Judge Lemuel Shaw to the jury. Far from an unbiased instruction on the pertinent law, Shaw's charge was virtually an instruction to the jury to find Webster guilty of murder.

When the public clamors for a culprit as perpetrator of an outrage, then when a culprit is found, a fabric of guilt can be woven that bends our whole system of jurisprudence to the public will. More recent examples include Sacco and Vanzetti, and the Rosenbergs (the latter accused of revealing nuclear secrets to the Soviets). All four paid the ultimate penalty on the basis more of public clamor than hard evidence. The upper classes of Boston society in 1850 demanded a culprit. One was found, who then swung in the wind of Scollay Square. Thus was calm restored to the land of the Bean and the Cod.

Long interested in this case and its many reverberations, from my first reading of the matter as a medical student 65 years ago, I became suspicious of the jury's verdict. I was therefore delighted when Sullivan's book first appeared about 30 years ago.

We must now turn our attention to Ephraim Littlefield. Along with other aficionados of this ancient case, I have long been impressed by the fact that not only was he an expert in the dismemberment of corpses, but he was certainly much more likely than Webster to have received a large loan from Parkman. Part of Parkman's living was obtained by collecting rents and interest on loans. He was sort of a one-man banker.

While no one can settle the rights and wrongs of this controversy after 150 years have elapsed, our readers may find it unsettling that a physician of our latter-day generation would heap more opprobrium on Webster's long-burdened shoulders, without even mentioning some of the evidence that casts doubt on his guilt and supports his claim of innocence. Prejudice, even when long delayed, readily neglects exculpatory evidence.

But even so, should not doubters of this latter day identify an alternative culprit? There was one person there, employed at the medical college, present through this whole filthy and tawdry affair, who really understood how to dismember a human corpse, because it was his daily job to do exactly that. Littlefield knew not only the principal players, but also the details of execution. He had full access to the site of the murder, and it was indeed he who found the corpse by drilling through a thick brick wall in exactly the right place at his very first try! All this in the feces-stinking mess of a privy in the Charles River tidewater. Is it just possible that the corpse was put there by none other than the man who found it?

Any indictment of Littlefield, however, must identify a motive. And yet...how strong a motive do we seek? Are we not accusing a meek and law-abiding chemistry professor of murdering an old friend over a long-standing debt? We know that Parkman loaned money to lots of people. Is it too much of a stretch of imagination that he might even have made a rather large loan to a janitor, who was surely in greater need than Webster? If we assign this motive to Webster, can we not with equal ease assign it to Littlefield?

May the *Bulletin* return to this fascinating matter 50 years from now, on the 200th anniversary of this foul deed. And may both the editor and the author—as yet unborn—present a truly skeptical and searching analysis of both the writings and the wrongings of this "murder most Harvard."

FRANCIS D. MOORE, SR. '39
WESTWOOD, MASSACHUSETTS

POINT> <COUNTERPOINT

Webster had a perfect alibi. At the time of the murder, he was in his home in Cambridge, reading to his children.

FRANCIS D. MOORE, SR. '39
WESTWOOD, MASSACHUSETTS

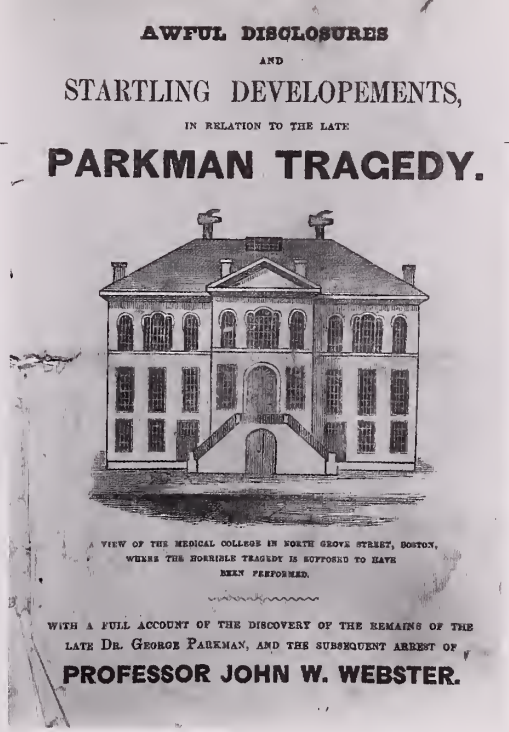
Webster had no alibi at all. He even admitted that he had met with Parkman on the afternoon of Parkman's disappearance.

ANTHONY S. PATTON '58
DANVERS, MASSACHUSETTS

Murder Will Out: Patton Responds

Dr. Moore was kind enough to call to tell me of the general nature of his remarks, and I have had the opportunity to read his letter in advance. It is indeed an honor for me to respond to one of Harvard's—and the world's—great physicians and surgeons.

Although I concur with a few of his remarks, I must respectfully disagree with Dr. Moore's assertion that John White Webster was innocent of the murder of George Parkman. I will respond point by point.


AWFUL DISCLOSURES
AND
STARTLING DEVELOPEMENTS,
IN RELATION TO THE LATE
PARKMAN TRAGEDY.

A VIEW OF THE MEDICAL COLLEGE IN NORTH GROVE STREET, BOSTON, WHERE THE HORRIBLE TRAGEDY IS SUPPOSED TO HAVE BEEN PERFORMED.

WITH A FULL ACCOUNT OF THE DISCOVERY OF THE REMAINS OF THE LATE DR. GEORGE PARKMAN, AND THE SUBSEQUENT ARREST OF
PROFESSOR JOHN W. WEBSTER.

Sullivan's book exonerates Webster: Robert Sullivan echoes many of the apologists for Webster at the time of the trial. Astonishingly, he also argues that the legal participants and Webster's religious advisor plotted together to hang Webster. While many have questioned the conduct of the trial, the existence of an elaborate conspiracy against Webster strains credulity.

Although the *Bulletin*'s space and style constraints did not permit my presenting the complete bibliography that was in my earliest draft, the most reliable sources I found consisted of primary materials at the Massachusetts Historical Society, including the accounts by stenographer James Stone and prosecutor George Bemis, whose summary won wide praise as a fair and accurate rendering of the trial.

The evidence against Webster was circumstantial: Although one might describe as circumstantial any murder case without an eyewitness, most people found the evidence against Webster—who had clear motive, means, and opportunity—to be overwhelming. Parkman's body parts were found in Webster's laboratory and stuffed down his private privy. Parkman had been hounding and threatening the penniless Webster, who had fraudulently put up the same collateral on two loans. When arrested, Webster was found in possession of a note owed to Parkman by a different debtor; by what legitimate means could Webster possibly have come into possession of such a document? Webster sent letters to the police, clumsily forged by his own hand, to try to deflect suspicion away from him. He also attempted suicide upon being accused. These are hardly the actions of an innocent man.

Webster's confession is suspiciously close to the trial testimony: First, it is surprising to me that Dr. Moore would believe Sullivan's unsubstantiated contention that Reverend Putnam would incriminatingly mold Webster's confession. There is no reason to suspect that Putnam's months of spiritual ministrations to Webster were anything but impeccable; he had no motive to harm Webster, and his reputation was spotless.

Second, although there are similarities between the two (not surprising, since they tell the same story), the trial testimony and Webster's confession do, in fact, diverge on one key point: Webster's confession reveals details that only the real killer could have known. His description of his carving and disposing of Parkman's body never emerged at trial. Only the actual murderer could have provided such a detailed account in his confession.

Webster had a spotless reputation: The professor was not always the kind, respectable man Dr. Moore portrays. Reports of Webster's history of violent behavior come from credible sources, including official Harvard undergraduate disciplinary records, his in-laws, and Webster himself, who, in his confession, admitted to a tendency to become irrationally violent, a character failing he blamed on his status as an indulged, only child.

Webster had a good alibi: Contrary to Dr. Moore's suggestion, Webster had no alibi at all. He even admitted that he had met with Parkman on the afternoon of Parkman's disappearance. Although several people thought they saw him later that afternoon, Parkman was a well-known figure in the streets of Boston, and there should have been dozens who saw him.

Webster had no motive: Webster himself admitted his motive: he was on the brink of having his livelihood, family life, and reputation destroyed by Parkman, who had repeatedly harassed and humiliated him with threats to get him fired, publicly expose his fraud, and ruin his name.

Webster lacked dissection skills: Webster was not just a chemist but a physician and, like all physicians of the time, probably better trained in anatomy than people in any other discipline. The dismemberment of Parkman's body certainly fell within his capabilities.

Littlefield, the janitor, was likely the culprit: Dr. Moore postulates that Littlefield, a lowly janitor, might have owed a large sum of money to Parkman. Yet Parkman kept absolutely meticulous financial records, and no evidence of such a debt was ever found or even suspected. In the absence of documentation of such a debt, what possible motive could Littlefield have had? And how could he have disposed of a body in Webster's furnace and privy without attracting Webster's alarm? Police investigators grilled Littlefield innumerable times and believed him innocent. For days, the defense lawyers tried and failed to break his testimony. The aristocracy of Boston, Cambridge, and Harvard would have been thrilled to find someone other than a Harvard professor guilty of this deed, and Littlefield would have made a perfect scapegoat. Then, as now, however, there existed no motive and no evidence to link him to this crime.

Identification of the body was not clear: Even the defense counsel conceded that the remains in Webster's laboratory belonged to Parkman. There had been no

other reported missing persons. No body had ever been disposed of before in Webster's laboratory. Parkman's own wife verified distinguishing marks on intimate parts of her husband's anatomy that only she could have known about. Nathan Keep, Parkman's dentist, identified the teeth as his own distinctive handiwork; that they might happen to fit someone else's jaw as well is immaterial.

The trial was rigged against Webster: I agree with Dr. Moore that the proceedings of Webster's trial were at times problematic. Yet whatever one might think of the process, the most brilliant legal minds of the time—including Rufus Choate and Daniel Webster—thought that John Webster should plead for either second-degree murder or manslaughter. When Choate and other lawyers refused to take the case, John Webster had to be assigned lawyers. Ned Sohier and Judge Pliny Merrick were well-known and highly competent, but even Sohier was suspicious of Webster's denials.

Some people believe that Chief Justice Lemuel Shaw's directions to the jury left little room for an acquittal, but others have found it to be a great legal document. Perhaps, as a member of the Harvard Corporation, Shaw could not countenance a liar who had betrayed not just his class but also his responsibility as a Harvard professor. Yet Shaw had a reputation for being highly competent, with a great respect for justice. He would not have directed the jury one way or another unless he was convinced of the truth of the evidence.

Webster was a meek professor, incapable of such a foul deed: A Harvard professorship is useful as a standard of academic achievement, but, unfortunately, it does not preclude overspending, lying, flying into a rage, or even committing murder. Although we all wish our fellow alumnus were innocent, the evidence of his guilt is overwhelming. His deceit, dishonesty, forgery, and cruelty only add to his shame. I researched this subject for many months in the hope that I might find an admirable side to Webster, but I found none and now suspect there was none. To be charitable, he seemed to have been loving to his family. And in fairness, one must admit also that Parkman goaded and threatened him. Perhaps Webster only meant to strike Parkman hard and not kill him. But kill him he did, and he admitted it. No one else carried out the cold-blooded dismemberment or composed that terrible confession.

Webster was a political scapegoat: To suggest that this case resembles an attempt by society to find a scapegoat is a hard reach, yet one that Sullivan adopts with vigor. He implies that there was a complex web of people in cahoots to persecute Webster. I am sure that the many respectable Boston families involved in Webster's prosecution would be glad to challenge Sullivan's assertions. Such a conspiracy would be a terrible crime. What motive might all these people have to hang Webster?

I am sorry to disagree with Dr. Moore, who deserves the utmost respect as one of the foremost surgeons, scientists, and physicians of the twentieth century and perhaps of all time. Yet in my mind and in the minds of highly competent unbiased people of the time—and even in the words of the accused himself—Webster was guilty of what some considered to be the crime of the nineteenth century.

Many histories of Harvard have barely mentioned John White Webster and the murder. The horror of the brutal crime seems to have stained our fine institution. Denial of the event, unfortunately, will not make it go away. Neither will denial of the unquestionable guilt of the Erving Professor of Chemistry, who admitted to all the gory details. As Dr. Moore reminded me over the phone, Veritas is our motto.

ANTHONY S. PATTON '58
DANVERS, MASSACHUSETTS

Babes in the Woods

"Babies in Saddlebags" by Frank J. Lepreau, Jr. '38 in the spring issue emphasizes the cantrasts that exist in Kentucky between the bluegrass and the hills and hollaws. My teaching positian in pediatrics and public health at the University af Louisville from 1950 ta 1955 gave me a great appartunity ta see the cammanwealth and different standards of medical care therein. Taking residents from urban settings to Hyden and ather hill tawns was an eye-opener far bath me and the residents.

My wife was already familiar with Miss Breckinridge, because af the visits she made ta raise maney at schaals in the East. Breckinridge was a farmidable lady, truly "invalved in all the details af the service." It was a camman impressian that she clung to the horses long after jeeps became available because of the PR effect the staries and pictures had an her audiences at the fundraising events!

On our visits I never had the apportunity to meet Breckinridge, but she was certainly one of the well-known citizens af the cammanwealth. Living in Kentucky far a few years is a recammended activity for any yaung physician.

HENRY H. WORK '37
BETHESDA, MARYLAND

The Bulletin *welcomes letters to the editor. Please send letters by mail (*Harvard Medical Alumni Bulletin, *25 Shattuck Street, Boston, Massachusetts 02115); fax (617-432-0013); or email (bulletin@hms.harvard.edu). Letters may be edited for length or clarity.*

First-Year Students Get a Jump

FOOD FOR THOUGHT: Michelle Tang '04 serves meals at the Boston Living Center, a resource for people with HIV, as part of the First-year Urban Neighborhood Campaign.

GETTING A JUMP START ON THEIR HMS EXPERIENCE, MORE THAN 40 first-year students arrived a week early to participate in the First-year Urban Neighborhood Campaign (FUNC). Eight groups of six to eight students, including two second-year students per group, participated in community service projects around Boston.

The weeklong program, established in 1998 by first-year students, introduces incoming students not only to their classmates, but also to the role community service may play in their future as physicians. The program seeks to encourage students to undertake community service while at HMS and to provide them with an opportunity to interact with Boston's patient population within the patients' own community.

In the evenings, students had a chance to reflect on their day's work and hear speakers from HMS and local community organizations. During the past two years, FUNC has worked with more than 16 community organizations in Boston and involved more than 120 medical students. This year's students volunteered at the American Cancer Society, the Boston Living Center, the Brookside Community Health Center, the Chinatown afterschool program, Harvard Pediatric Health Services, Health for the City, the Hepatitis B Initiative, and the Home for Little Wanderers. ■

The Class of 2004

On August 31, Dean Joseph Martin welcomed the Class af 2004 ta HMS. Earlier that day, the new medical students were presented with their white caats during ceremanies held by each society.

The entering class consists of 87 men and 80 women. The number af minarity students entering remains strang. The Class of 2004 includes 36 Asians and Pacific Islanders, 17 African Americans, 18 Mexican Americans, seven Native Americans, and four Puerta Ricans. The yaungest entering medical student is 19 years ald, the oldest is 32, and the median age is 23.

Thirty-twa U.S. states are represented in the class. California leads with 39 students. Massachusetts is next with 16, followed by New York with 15, and Maryland, New Jersey, and Virginia with eight each. There are eight internatianal students, including five fram Canada and ane each from the Czech Republic, Lebanon, and Nigeria.

Abaut 23 percent af the class (39 students) graduated from Harvard College. The next highest numbers came fram MIT (11), Yale (10), Stanford (9), and UCLA (7). Science majars make up 63 percent af the class, while 10 percent majared in humanities and 8 percent in social sciences. Six percent graduated with ather majars, and 13 percent graduated with double majors. ■

PHOTOS: LIZA GREEN

WELCOME ABOARD: First-year students get to know their new classmates during the orientation session at HMS.

Harvard Launches New Research Institute

In a June ceremony, HMS, Partners HealthCare, and CareGraup signed an agreement ta create the Harvard Clinical Research Institute (HCRI). This clinical research partnership is intended ta expand clinical trials in academic health centers and ta enhance the Harvard medical cammunity's rale as a warld leader in clinical research. Amang the key participating institutions are HMS, Beth Israel Deacaness Medical Center, Brigham and Wamen's Haspital, and Massachusetts General Haspital.

"The creation of the Clinical Research Institute culminates twa years of study, planning, and negatiatian by many dedicated peaple in the Harvard medical cammunity," said Dean Jaseph Martin. "This unique partnership will take us inta the twenty-first century positioned to provide efficient cantracting ta industry, trials with academic rigar, and a patient papulatian large enaugh ta find aut quickly haw effective a new therapy may be."

The new institute will facilitate clinical research by faculty members in affiliated institutians and pravide better access ta the faculty for research spansars fram the pharmaceutical and biatechnalagy industries. The Harvard medical community currently canducts mare than $600 millian in research each year, af which abaut $40 millian represents industry-spansared clinical trials.

By offering central management far all aspects af research—fram efficient and ethical study design, to fast and simple patient accrual pracedures, ta expert data analysis—HCRI is expected ta raise Harvard's share af industry-spansored clinical research ta at least $140 millian aver the next five years.

Educatianal pragrams will be anather af HCRI's primary activities. These will encampass training far students, physicians, study caardinatars, and athers wha wark an clinical trials; continuing medical education; and schalarly research and publicatians.

PHOTO: COURTESY OF PARTNERS IN HEALTH

MULTIPLE TRAGEDY: A family in Lima, Peru, stands in mourning at the burial of their second child to die of multidrug-resistant tuberculosis.

Gates Foundation Grant Takes Aim at Tuberculosis

THE BILL AND MELINDA GATES Foundation has granted HMS nearly $45 million to create a collaborative partnership that will develop a replicable model for controlling multidrug-resistant tuberculosis (MDR-TB). The team will work with the Peruvian National Tuberculosis Program over the next five years to control drug-resistant tuberculosis in Peru, thereby developing a model for other nations to follow.

"The spread of drug-resistant TB throughout the world is alarming, and the scale of suffering from the disease is tremendous," says Jim Yong Kim '91, director of the HMS Program in Infectious Disease and Social Change and principal investigator on the grant. "This remarkable, visionary grant will allow us to take swift action to contain this public health threat before it spins completely out of control."

Tuberculosis kills more than two million people each year, making it a leading cause of death worldwide. In 1993, the World Health Organization declared TB a global emergency and launched an aggressive program known as Directly Observed Treatment, Short-course (DOTS) to eliminate the epidemic. This program, which can cost as little as $30 per patient, has been successful in many nations in controlling drug-susceptible TB. Strains of MDR-TB, however, are resistant to the two most important drugs in the DOTS strategy. A 1997 WHO study found that in some known TB hot spots, MDR-TB accounted for at least 20 percent of all previously treated TB cases.

The partnership funded by the Gates Foundation will further test and improve an MDR-TB treatment pilot program in Lima, Peru, called "DOTS-Plus." This program cures patients with MDR-TB at a fraction of the cost of treatment in the United States (as little as $800 per patient compared to as much as $100,000 in the United States). The initial phase of the project will focus on the refinement of the DOTS-Plus strategy in Lima. The program will then be expanded throughout Peru. Once fully implemented in Peru, the Gates grant will provide support to help bring this model to other regions where MDR-TB is a serious public health threat.

Aiding the War on Cancer

The National Cancer Institute has announced that it will award the Dana-Farber/Harvard Cancer Center more than $50 million during the next five years to support the center's programs, development initiatives, and core research facilities. Created last year, the center unites the efforts of more than 800 scientists from various specialties, including immunology, cancer genetics, drug development, and molecular biology. It also brings together seven Harvard-affiliated institutions to collaborate on cancer research. More information about the center can be found at its web site at www.dfhcc.harvard.edu.

HMS Spins a New Web

HMS has become the flagship medical content partner of InteliHealth (www.intelihealth.com), Aetna U.S. Healthcare's on-line health information subsidiary. HMS will bring its expertise to the award-winning InteliHealth web site to enhance its content and usability, while partnering with InteliHealth in giving consumers the highest level of privacy protections. In addition, the site intends to focus increased attention on the health issues facing underserved populations.

InteliHealth and HMS subscribe to the privacy principles of an international group, Health Internet Ethics (Hi-Ethics), and have imposed additional privacy standards on their relationship. In addition, InteliHealth will enhance its already strict policy of clearly separating advertising and editorial content.

HMS will have full editorial independence in developing and reviewing medical content for the site. Content developed by HMS will be included throughout the site and will be clearly labeled. More than 70 HMS faculty members—with expertise ranging from pediatrics to geriatrics—will develop health content and provide editorial review for the site.

New Division to Study Complementary Medicine

HMS has established the Division for Research and Education in Complementary and Integrative Medical Therapies. David Eisenberg, director of the Center for Alternative Medicine Research and Education at Beth Israel Deaconess Medical Center and associate professor of

PHOTO STEVE GILBERT

SITE TO BEHOLD: HMS Dean Joseph Martin (left) and InteliHealth President Sal Uglietta seal an agreement making HMS the primary medical content partner of InteliHealth.

medicine at HMS, has been appointed director of the new division.

Research indicates that the popularity of complementary and integrative medicine in the United States has increased dramatically in recent years. "This new division will permit a scholarly, evidence-based approach to complementary and integrative care," Eisenberg notes. "In turn, this information will serve to create a system of checks and balances to enable consumers and providers to navigate this new field with greater confidence."

The State of the School

At his third annual State of the School address in September, Dean Joseph Martin unveiled plans for a renewed and expanded Harvard Medical campus on both sides of Longwood Avenue.

"I wonder how many of you know who Oscar Tugo was?" he asked the audience. "How many know where Tugo Circle is?" Private Oscar Tugo was an Army medic assigned to the Harvard unit in the First World War—and the first American enlisted man to die in the war. The circle named in his honor, at the intersection of Longwood and Louis Pasteur avenues, will become the center of the new campus, Martin said. The existing Quad will be known as the "South Quad." The "North Quad"—home to Vanderbilt Hall and the Harvard Institutes of Medicine—will be the site of a new research building that will adjoin and wrap around the HIM building. Groundbreaking is slated for later this year, completion for 2003.

The building will be the new home for the genetics and pathology departments, and the focal point for Quad–hospital collaborations, which may include programs in genetics, metabolic diseases, molecular pathology, neuroscience, and vascular biology. It will house a conference center and a 600-seat auditorium. South Quad space will be freed to create enhanced lab facilities for the other basic science departments and provide opportunities for new scientific initiatives.

Building A Rechristened as Gordon Hall

In August, Building A was renamed the Ellen R. and Melvin J. Gardan Hall af Medicine.

"Ellen and Melvin Gardon have been gaad friends of Harvard Medical School for many years," Dean Joseph Martin said. "Naw the Gordons have agreed to provide significant current use funds ta help move research farward in the areas where molecular bialagy has the greatest pramise far ending suffering caused by disease. The funds will suppart new scientific initiatives, fram acquiring new technologies and develaping core facilities ta recruiting new faculty to take part in interdisciplinary programs."

The Gardons have also directed some af the funds to reopening the building's skylight, which has been covered ever since a Warld War II security mandate required it to be. ■

PHOTO: STEVE GILBERT

BRIGHT FUTURE: The Gordons' generosity will support new research and open the building's skylight.

Martin also unveiled a mission statement for HMS: "To create and nurture a community of the best people committed to leadership in ending human suffering caused by disease." Building community has been a hallmark of Martin's deanship, and in the speech he updated the "alphabet soup" of collaborative efforts under way or planned under his leadership: HIP (Harvard Institute of Proteomics), ICCB (Institute of Chemistry and Cell Biology), HCRI (Harvard Clinical Research Institute), DF/HCC (Dana-Farber/Harvard Cancer Center), and others. Plans are afoot for a vaccine institute and a program for brain repair and tissue regeneration.

"We have learned an enormous amount by the reductionist approach in the past three decades about molecules and receptors and proteins," Martin said. "Understanding how they work in the whole organism will be an increasing opportunity and challenge." As a result of these changing paradigms and the revolutionary tools now available to researchers, the "ways of the future" in science are interdepartmental, interfaculty, interdisciplinary, interinstitutional, and international, he added.

"If Martians arrived on the Quad today, dropped into a laboratory, and looked at the science going on there, they often would not be able to tell whether they were in cell biology or biological chemistry or neurobiology. This trend is going to gain momentum."

The non-laboratory, school-based departments have a long history of working across boundaries and are already enmeshed in collaborations with insurers, health departments, foreign governments, and others, he noted. For example, Health Care Policy faculty are working with four large national health plans to manage and improve quality of care, and with Medicare on the Consumer Assessment of Health Plans Survey.

Following the decision to stand firm on conflict-of-interest guidelines, Martin and the School have been in the forefront of national discourse on this thorny issue, he said. An HMS-organized meeting of the deans of several leading academic medical centers is scheduled for late November in Washington, DC. "We want to see whether we can take the academic lead in establishing national guidelines and principles for the engagement of our faculty with the industrial world—whether in basic research, supporting laboratories in our institutions, or in clinical research, where human subjects are involved," Martin said.

On diversity, another of Martin's priorities, he reported that the School is performing superbly at the student level (more than half of this year's incoming medical students are nonwhites), and that intensive efforts to increase staff diversity are under way. But faculty diversity is a more intractable problem.

After announcing that William Silen will step down as dean for faculty development and diversity, Martin outlined his plans to diversify the faculty. These include monitoring promotions with an eye to more effective mentoring of minority faculty; a resident survey to assess minorities in the "pipeline"; and joint financial commitments with the hospitals to recruit outstanding minority physicians and researchers from around the country.

In Remembrance

The latest issue of *In Memoriam*, a booklet that commemorates the lives of HMS faculty members who have died during the last five years, is now available. Each of the publication's 36 tributes, written by faculty peers, reveals the person's character and contributions to science and medicine. To receive a copy, contact Kathleen Longee in the Office for Faculty Affairs (kathleen_longee@hms.harvard.edu; 617-432-1138).

Send Your Email Address

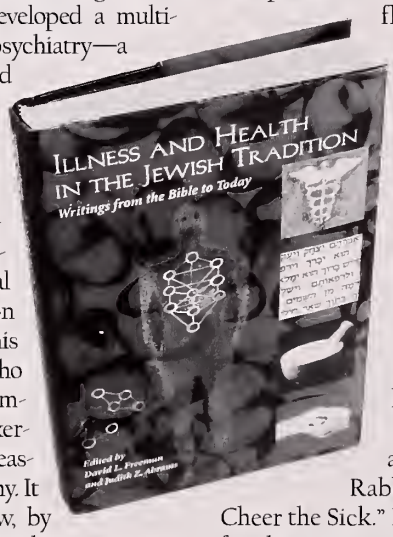
The Alumni Council is compiling a list of email addresses of all HMS alumni, to be able to share news and to elicit opinions. Alumni are asked to forward their email addresses directly to the Alumni Office at hmsalum@hms.harvard.edu. ■

Illness and Health in the Jewish Tradition

Edited by David L. Freeman '69 and Judith Z. Abrams
(The Jewish Publication Society, 1999)

WITHIN THE SPAN OF A FEW YEARS, THE GREAT twelfth-century physician Maimonides was struck by two enormous blows: his father's death and the loss of his beloved brother, David, at sea. Perhaps blaming himself for his brother's death, Maimonides fell into a bout of what we might now call "major depression with somatic features." He experienced cardiac symptoms and seems to have developed a nervous skin ailment. "I was at death's door," he later wrote.

This bout of melancholy forced Maimonides to deal with his own vulnerability to physical and emotional suffering and to devise coping strategies. He ultimately developed a multimodal, or—as we would say in modern psychiatry—a *biopsychosocial* approach to health, illness, and healing. Maimonides also held to an "equilibrium theory" of physical and emotional health, predicated on a critical balance of nutritional, environmental, hygienic, and psychological factors. For Maimonides, disease occurs when the mind-body relationship shifts suddenly away from its optimal equilibrium point, rather like a rock falling on one end of a carefully balanced seesaw. In his treatment of the Vizier Al-Malik al Fadil, who suffered from depression, Maimonides recommended a regimen of dietary regulation, exercise, sexual moderation, music, walks in pleasant surroundings, and the study of philosophy. It might be argued that Maimonides foresaw, by some seven centuries, the development of "psychosomatic" or behavioral medicine.



In their excellent collection entitled *Illness and Health in the Jewish Tradition: Writings from the Bible to Today,* David Freeman '69 and Judith Abrams pay homage to Maimonides in several ways. Not only do they cite several of his medical works, but they also weave a tapestry of medical and spiritual healing that accords with his comprehensive approach to the sick and suffering. As the authors note in their introduction: "Suffering from all illness, even a minor sickness, has a spiritual component....Mitigation of spiritual distress requires not medicine, but rather, human assistance. What is needed are solace, hope, companionship, perspective, guidance, engagement, redirection, encouragement, and a renewed sense of self-worth."

Freeman, an internist and instructor at HMS, and Abrams, a rabbi, provide a broad range of source material aimed at just such a humanistic approach to disease and suffering. They draw on the Bible, the Talmud, and even that esoteric tract, the Zohar. They cite not only ancient Jewish authorities like Maimonides, but also a range of modern thinkers, such as Rabbi Harold Kushner, author of *When Bad Things Happen to Good People.*

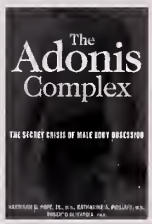
Illness and Health covers a range of topics, including blessings for healing, ethical guidelines for visiting the sick, a prayer after miscarriage, and even satires on physicians. While the book is steeped in the Jewish tradition, people of any faith—perhaps even of no faith—will find food for thought in this compact volume.

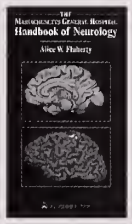
Freeman and Abrams attempt to address a wide audience, aiming to reach people who suffer from major illness, their loved ones, chaplains, and caregivers. This breadth is both a strength and a potential weakness of the book. This is not a volume to be plopped uncritically into the lap of a desperately ill individual, who might happen upon passages such as this psalm of David: "O Lord...there is no soundness in my flesh because of Your rage, no wholeness in my bones because of my sin. For my iniquities have overwhelmed me." Such perspectives are of interest to the scholar and the philosopher, but are not of help to the suffering—and perhaps depressed—patient. Nevertheless, a careful culling of selections from this book could offer great solace to the sick or dying individual. For example, Hirshel Jaffe—a young rabbi stricken with leukemia—provides a moving and inspiring account of his illness. "By facing death," Jaffe writes, "I am learning how to live."

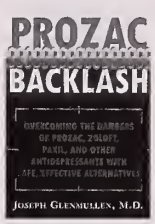
Many other sources in the book should also help chaplains and caregivers, such as Rabbi Rachel Cowan's piece, "Learning to Cheer the Sick." Rabbi Cowan stresses how important it is for the patient to feel like "a human being, not a patient." This means, for Cowan's terminally ill husband, Paul, listening to music, reading books, and taking on writing projects in the hospital.

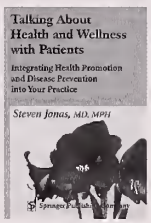
As a psychiatrist, I would have liked more material on helping families and loved ones cope with the ravages of mental illness. I would also have liked an index, given the breadth and detail of the source material. Perhaps in the next edition of this book, the authors could consider these suggestions. In the meantime, though, *Illness and Health* should be a welcome resource for patients, their families, and their caregivers, regardless of their faith. ■

Ronald Pies, MD, is a lecturer on psychiatry at HMS, a clinical professor of psychiatry at Tufts University, and author of The Ethics of the Sages, *an interfaith examination of the Talmud (Jason Aronson, 2000).*







The Adonis Complex

The Secret Crisis of Male Body Obsession, by Harrison G. Pope, Jr. '74, Katharine A. Phillips, and Roberto Olivardia *(Free Press, 2000)*

Based on 15 years of clinical and research experience, this book argues that men have increasingly fallen victim to unrealistic societal expectations, fueled by media images, about what their bodies should look like. The authors present techniques to treat men who suffer from serious body image disorders, and they offer strategies for helping men learn to reject the unattainable ideals projected by the media.

Doctors Afield and Afar

by William V. McDermott '42 *(William L. Bauhan, 2000)*

This book brings to life the stories of 20 famous men, from the Renaissance to the twentieth century, who were trained as physicians before they went on to gain fame in other fields. From Copernicus and Galileo to John Keats and W. Somerset Maugham, McDermott profiles a series of illustrious novelists, poets, explorers, soldiers, and inventors who once focused on medicine.

Dying for Growth

Global Inequality and the Health of the Poor, edited by Jim Yong Kim '91, Joyce V. Millen, Alec Irwin, and John Gershman *(Common Courage Press, 2000)*

This volume critically examines the impact of globalization on the health and welfare of impoverished people. It traces how political and economic policies exacerbate global disparities and render the poorest people vulnerable to disease, even amid extraordinary overall growth in world wealth. It also demonstrates how equitable public health policies can help achieve good health programs in the face of economic adversity.

The Massachusetts General Hospital Handbook of Neurology

by Alice W. Flaherty '94 *(Lippincott Williams & Wilkens, 2000)*

Aimed at house staff, fellows, and other hospital-based practitioners, this book is designed not as a primer but as a reminder to busy clinicians of what they should already know. Flaherty's concise but comprehensive handbook provides a one-stop, up-to-date resource for the diagnosis and treatment of all commonly encountered neurologic disorders. It also covers the aspects of pharmacology, psychiatry, and internal medicine that are essential to the practice of neurology.

Prozac Backlash

Overcoming the Dangers of Prozac, Zoloft, Paxil, and Other Antidepressants with Safe, Effective Alternatives, by Joseph Glenmullen '84 *(Simon & Schuster, 2000)*

Glenmullen contends that the quick-fix mentality of patients and cost-conscious health plans have pushed many Americans into long-term use of antidepressants such as Prozac, which he warns may carry serious, harmful side effects. For patients with mild anxiety and depressive disorders, he advocates alternative treatments, such as psychotherapy, family therapy, herbal remedies, 12-step programs, and lifestyle changes.

Reconsidering Ayn Rand

by Michael B. Yang '93 *(WinePress, 2000)*

Ayn Rand has influenced a generation of readers, including a young Michael Yang, with her controversial ideas about reason, atheism, egoism, and capitalism. However, when Yang began his studies at HMS, he felt compelled to reexamine her philosophy of objectivism. He shares with readers this personal intellectual journey as he critically examines Rand's fiction and philosophy, exploring the themes of self-esteem, human worth, productive work, and romantic love.

Talking About Health and Wellness with Patients

Integrating Health Promotion and Disease Prevention into Your Practice, by Steven Jonas '62 *(Springer Publishing Company, 2000)*

While most medical education programs focus on the nature of illness, health promotion and disease prevention often receive less attention. This short guide explains, in the form of ten central concepts, both the nature of wellness and the processes of behavior change necessary to promote well-being. It also shows clinicians how they can use this knowledge to help patients achieve healthy changes in habits and lifestyle.

Three's Company: New Evidence for a Third Player in Thrombus Formation

If blood is the river of life, then arteries are the rapids. In the swirling high-shear flow of a small artery, however, the immediate response of endothelium to injury is to slow things down. The objective is to form a thrombus, a cellular logjam in which passing platelets can pile up, plugging holes and pinching off bleeding. To get a grip, platelets need the anchor of von Willebrand factor. To raft up and cross-link platelet-to-platelet, they need fibrinogen. Without one of the mediating ligands, platelet adhesion and aggregation is difficult. In the absence of both, arterial hemostasis—the ability to arrest bleeding—should be impossible.

That's the accepted version. "Those two are the most prominent, well-known textbook adhesion molecules for platelets," says HMS Professor of Pathology Denisa Wagner. But the textbooks may need revision. In the August *Journal of Clinical Investigation*, Wagner, research fellows Heyu Ni and Cécile Denis at the Center for Blood Research, and their colleagues came forward with dramatic evidence of a mysterious third molecule in thrombus formation. Their study was built around a double-knockout mouse that theoretically shouldn't exist and intravital microscopy observation of a process never before seen in vivo.

Wagner's double-knockout mouse is deficient in both von Willebrand factor (vWF) and fibrinogen (Fg). Theoretically, a vWF/Fg mutant should be nonviable, yet the mating of a vWF knockout prepared by Wagner's lab with a fibrinogen knockout mouse from Children's Hospital in Cincinnati was surprisingly easy. "We thought the doubly mutant mice might not live because they would just bleed to death during birth and postnatal trauma," says Wagner. "But they live quite well."

PHOTO GRAHAM RAMSAY

UNUSUAL SUSPECT: Denisa Wagner and colleagues found evidence of a sidekick to von Willebrand factor and fibrinogen in thrombus formation.

Life in the Fast Lane

To find out why, Wagner and Ni turned to an intravital microscopy model that allows them to observe a thrombus forming under high-shear flow conditions in a living artery. Their model is an arteriole in the transparent mesenteric tissue lining the intestine of a young mouse, which can be isolated on the stage of an inverted microscope. The injury is a drop of ferric chloride that lyses away the smooth endothelial lining and exposes the rough mesh of von Willebrand factor and other components of the basement membrane.

A video camera records the epic struggle to reseal the injured vessel wall. Intravital microscopy shows the fibrinogen-deficient mutant mouse trying to form a thrombus—a raft of cross-linked blood platelets—to plug the damaged wall of a tiny arteriole. But this mouse is deficient in fibrinogen, the ligand that mediates platelet-to-platelet adhesion, and without it, the thrombus is visibly unstable. It eventually rips loose completely and goes shooting downstream, a newly formed embolism.

Earlier researchers working in vitro had to use anticoagulants to keep the blood from clotting, Wagner explains. "But in vivo, the mouse is not anticoagulated. The mouse is natural. It generates thrombi and fibrin only locally at the site of injury. And it's just amazing to see how the body can control everything so that it happens only locally."

THE MISSING LINK?

Researchers led by Denisa Wagner compared thrombus formation in mice lacking both fibrinogen and von Willebrand factor with wild-type mice. Times after injury are indicated in minutes. The bright objects are fluorescently labeled platelets. In wild-type mice (upper panel), thrombi grew fast and anchored well to the vessel wall at the site of injury. In the mice lacking both von Willebrand factor and fibrinogen, delayed thrombus formation occurred with frequent embolization. Most of the arterioles in the double-deficient mice eventually occluded.

The tapes start with the wild-type control mouse with normal von Willebrand factor and fibrinogen. On the monitor, the damaged arteriole is a streambed with small bright spots that shoot past in the current. These are blood platelets, fluorescently labeled to be visible to the camera. Four minutes after injury, platelets that normally race past undamaged tissue are skidding to a stop on the wound. Blood is still flowing over them at great speed, but the platelets are being grabbed by vWF in the subendothelium. At eight minutes, the fluorescent platelets are piling up and fibrinogen is starting to cross-link them into a bright, tightly woven thrombus. "So here are lots and lots of platelets," Wagner says. "This is the vessel wall. Here the vessel should be dark, but you have a thrombus that's formed in the vessel. It's actually really pretty."

The knockout mice have much more trouble. First come the single knockouts. The knockout lacking von Willebrand factor but armed with fibrinogen takes much longer to make its platelets stick, but eventually it builds a structurally solid thrombus. The knockout lacking fibrinogen but possessing vWF gets off to a good adhesive start. Once the platelets start to aggregate, however, the thrombus looks dangerously unstable. "Can you make thrombi without fibrinogen?" Wagner asks. "Yes, you can. You make the thrombi, but the funny thing is that they don't seem to stick to the wall as well as they normally would. They seem to be translocating."

On the screen, a large thrombus quivers in the flow, its attachment points visibly stretching. "It's as if it's on tiptoes," Wagner says. "It's not stable. The whole thing is moving downstream." Suddenly the thrombus rips loose and spins away out of sight, an embolism on the loose.

"A wandering thrombus is a very dangerous thing," Wagner adds. "You can get pulmonary emboli, and that's what fibrinogen-deficient people tend to get."

Stepping Up to the Platelet

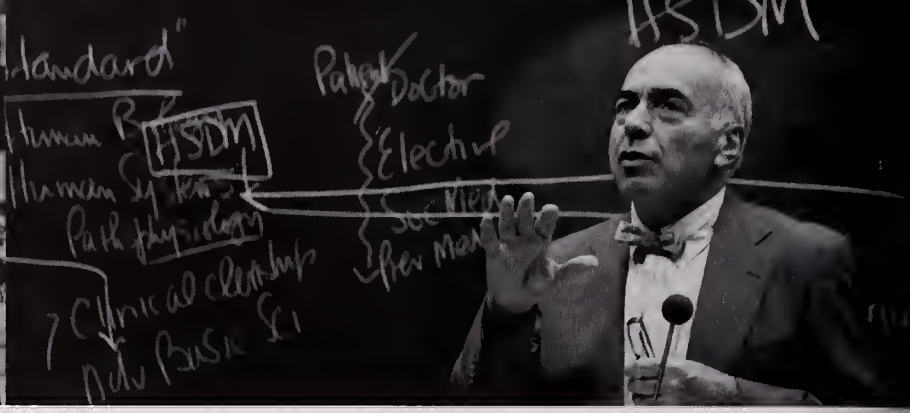
The double knockout, deficient in vWF and fibrinogen, has trouble with both adhesion and aggregation. Yet somehow, it manages both functions. "Everything is delayed," Wagner says, "because without von Willebrand factor you have a delay in platelet adhesion. You have thrombi formation, but it is much delayed and, as in the fibrinogen-deficient mice, the thrombi are unstable. But something besides von Willebrand factor is holding them to the vessel wall, and something besides fibrinogen allows the platelet–platelet aggregation."

Wagner's candidate for the third adhesion molecule is fibronectin, a glycoprotein present in blood plasma. "We have evidence that it must play a role in platelet biology because the platelet picks up fibronectin at a high level if there is no fibrinogen around," she says. "We think it is picked up by the same receptors that cause platelet aggregation. I believe that means that fibronectin can step in and make platelet-to-platelet adhesion."

A third adhesion molecule wasn't suspected before because there is no third bleeding disease due to problems in platelet aggregation. In addition to those with von Willebrand's disease, there are also people lacking fibrinogen, Wagner notes. "They have bleeding problems and embolic problems, which is how they are identified. There ought to be another deficiency disease if fibronectin were important, but deficiency in fibronectin is embryonically lethal in mice, and presumably in humans. So such a defect could not be observed. The embryos would be aborted first."

That doesn't mean, however, that fibronectin is more important than fibrinogen in platelet adhesion, Wagner adds. It just means that no one has closely examined fibronectin's role in platelet adhesion alongside that of fibrinogen. "I think the role of fibrinogen is to make fibrin to hold the platelet plug in place, and no other molecules can do that," Wagner says. "But there are other platelet-to-platelet adhesion molecules—such as, perhaps, fibronectin—that can mediate the platelet–platelet interaction. We now know they can do it in the absence of fibrinogen, and we think that they also participate when fibrinogen is present." ■

John Fleischman is a science writer for Focus. *To view a short movie on thrombus formation in fibrinogen-deficient mice, log on to http://cbr.med.harvard.edu/investigators/wagner/wagner.html.*



SPECIAL REPORT

the good DOCTOR

Daniel Federman—beloved teacher and renowned physician, scholar, and gentleman—closes one chapter of stellar service to HMS and embraces another

by TOM REYNOLDS

EVERYONE KNOWS TIME-HONORED HABITS DIE HARD. So it's no surprise that Daniel Federman '53 would find it difficult to say goodbye to Harvard after a half century here as a student and teacher.

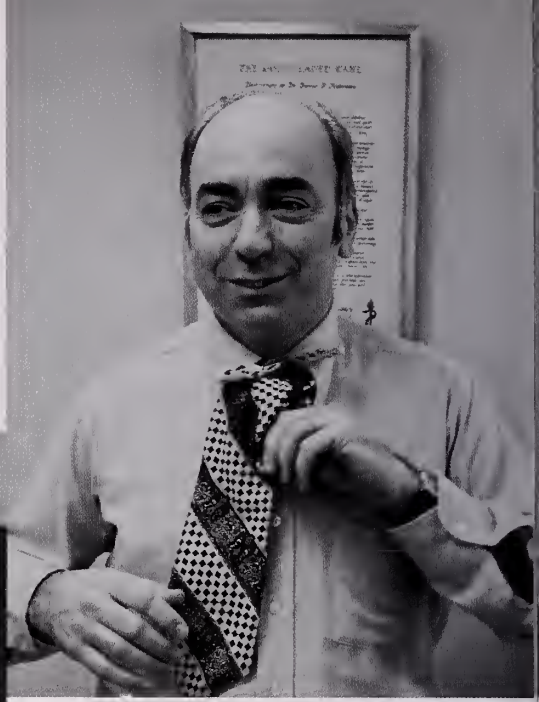
To the relief and gratitude of many colleagues and friends, Federman did not depart from HMS when Daniel Lowenstein '83 took over the position of dean for medical education in July. Instead, he is enjoying his new role as senior dean for alumni relations and clinical teaching, which will allow him to devote more time to favorite projects.

"My life has been in this Quadrangle for 50 years," Federman says. His bond to Harvard was forged as a college freshman just after the Second

A MAN FOR ALL SEASONS
Clockwise from top left: Daniel Federman, devoted husband, with his wife, Betty, at Class Day 2000; consummate teacher, in 1993; proud father, with his elder daughter, Lise, at a recent dinner in his honor; caring physician, with a patient during HMS orientation in 1981; family role model, with his younger daughter, Carolyn, at her 1986 graduation from HMS; deft administrator, with Nancy Oriol '79, associate dean for student affairs, in 1999; and beloved mentor, with HMS students in the mid-1990s.

dan federman TIES ONE ON

Known around campus for his bow tie, Federman trades one style for another



tough act to follow

During my week af arientation to HMS, I vividly remember watching a kind and delightful faculty member giving one of the most elegant, clear, and riveting lectures I had ever heard—and that I have ever heard since. I would never have guessed that naw, slightly more than 20 years later, I would be trying to take the place of the very same teacher. Dan's impact on HMS is incalculable, and it has become clear that I cannot passibly fill his shoes. Instead—and to paraphrase Newton—I will try to stand on his shaulders to take advantage of the view that his great stature will affard me.

—DANIEL H. LOWENSTEIN '83, DEAN FOR MEDICAL EDUCATION, HMS

World War. He graduated summa cum laude from Harvard College in 1949 and magna cum laude from HMS in 1953. Since then, he has spent nearly his entire professional career teaching, guiding, and healing at HMS, Massachusetts General Hospital, and Brigham and Women's Hospital.

Renaissance Man

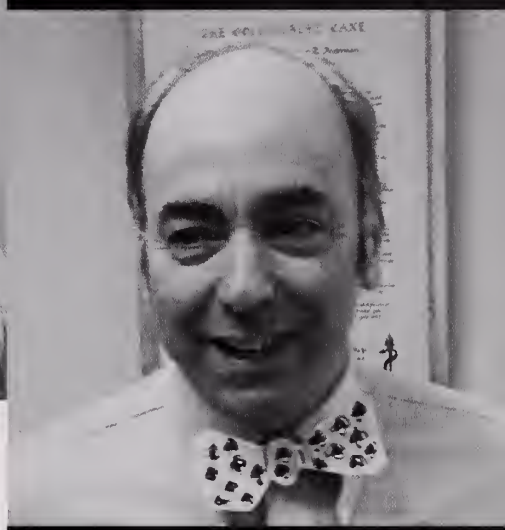
Daniel Tosteson '48, the Caroline Shields Walker Distinguished Professor of Cell Biology and dean of HMS from 1977 to 1997, recalls that when he assembled his leadership team, the Boston colleagues he consulted "were almost unanimous that 'you have to recruit Dan Federman.'" So he did, bringing the Harvard man back from Stanford University, where he had been chairman of medicine for four years, and making him dean for students and alumni. Tosteson calls Federman a peerless teacher and credits him with a crucial role in the transition to the New Pathway, the innovative system of problem-based learning the School instituted in the 1980s.

Tosteson recalls Federman's skill in communicating clearly and supportively to the faculty the goals and methods of the New Pathway, as well as in modeling the teacher's changing role in the classroom and clinic. And he notes the interpersonal acuity that enables Federman to "reach through to the essence of people around him" and that helped him recruit and work effectively with a series of excellent deans for students.

Others who have worked closely with Federman echo this praise. Joseph Martin, dean of HMS, calls him "the consummate clinical teacher and scholar," noting that with each patient he examines, Federman communicates his enthusiasm for the art and science of medicine and helps students develop a deep curiosity about the mechanisms of disease.

Core Competency

Federman says his career has always revolved around personal relationships and traces this interest back to his college days. He majored in psychology and sociology because he wanted to understand personality and human interactions. And, he recalls, "I entered the doctor/patient relationship very conscious of it as an interpersonal compact," an awareness that has remained paramount.



"What hasn't changed over the years is that connection is still at the center of both the doctor/patient relationship and the teacher/student relationship," Federman says. "What has changed is the setting in which this takes place, and the science that backs it up." The size of the faculty, the number of people involved in patient care, and the complexity of biomedical science have all grown enormously, and he worries that while physicians have more powerful tools than ever before for healing their patients, the time available for human contact is steadily diminishing.

"One of the things Dan Lowenstein will have to think about is how to resolve this paradox of enormous diagnostic and therapeutic power coupled with inadequate personal interaction, both in health care and in medical education," Federman says.

A Man of Many Hats

Ronald Arky, the Charles S. Davidson Distinguished Professor of Medicine and master of the Francis Weld Peabody Society, says, "There is nobody who typifies the teacher so well as Dan—in the lecture hall, at the bedside, or in the conference room. He has no equal in his ability to take a very complex subject and put it in simple, lucid, and precise terms."

Daniel Goodenough, the Takeda Professor of Cell Biology and master of the Oliver Wendell Holmes Society, observes that Federman displays not only superb oratorical skills, but also a gift for direct and heartfelt expression of emotion that inspires listeners. Goodenough also admires Federman's ability to serve as "master of the society masters" with their different points of view and educational ideas. "With humor, Dan would corral our unruliness: 'Okay, kids, let's get on with the agenda.' It is both nurturing and humbling to be called a 'kid' in the age range of 50 to 70—testifying to Dan's broad leadership skills and presence."

Another of Federman's titles is director of alumni relations. Tosteson says Federman's encyclopedic knowledge of the School's history and his personal friendships with many of its alumni make him uniquely qualified for this job. Nora Nercessian, assistant dean for alumni affairs and special projects, has worked with Federman on alumni activities and other programs, including a model center for women's reproductive health in the former Soviet republics and a series of multilingual medical phrase books for communicating with non-English-speaking patients. She looks forward to working with him even more closely in the coming years. "Dan's generosity, his humanity, his profound sense of commitment to the patient/doctor relationship, and his ethical sensitivity propelled these projects forward at every stage through many difficulties," Nercessian says.

Federman is admired as a staunch advocate for students. Nancy Oriol '79, associate dean for student affairs, lauds his selfless dedication to the School and to the improvement of the HMS experience for its students. "He has used his legendary eloquence both to advance the voice of the students, individually and collectively, and to help build an

pillar of the community

Some years back on a summer afternoon, I was talking with a colleague on the Quadrangle as Dan Federman walked up the front steps of Building A. As we watched him, we agreed that he was not unlike one of the columns holding the entire structure of the medical school up.

—CALVIN HENNIG, PROGRAM OFFICER, CASTLE SOCIETY, HMS

inspired leader

Dan Federman's impact has been enormous. He has helped to shape the current generation of physician leaders and seeded the next. He has implemented powerful models of medical education—an extraordinary accomplishment, given the complexities of the environment and times. For me personally, there has been no better teacher or role model. My years as a master at HMS were a highlight of my career, largely due to the excitement and pleasure of working with Dan.

—MICHAEL ROSENBLATT '73, PRESIDENT, BETH ISRAEL DEACONESS MEDICAL CENTER

inclusive thinker

The first time I heard Dan Federman lecture must have been in 1964–65, my first year of medical schaal. He was teaching us abaut the complexities of the sex chromosames, sex determination, and sexual development. At the time, it was rather brave of him ta take an this subject. The attitudes af the time were expressed then, as now, in discussions af athletic performance. A few athletes who did nat carry the usual XX ar XY camplement had entered sporting events and been subjected to karyotyping. Sentiment was widespread that people with such anomalies should not be allawed to campete, thus easily daing away with the untidiness of bodies and identities that did not fit the standard categaries. As he ended his lecture, Dan reviewed the cantroversy abaut these athletes and cited the appasitian they were facing. He then laaked up, and with the compassionate wit sa characteristic of him, mused, "Of course, this raises the interesting question, 'Whase race will they run in?'" Since then, whenever I have been tempted by exclusionary thinking, I've had to ask myself, "Okay, whose race will they run in?"

—WILLIAM IRA BENNETT '68, EDITOR-IN-CHIEF, *HARVARD MEDICAL ALUMNI BULLETIN*

master teacher

Dan Federman has been the leader and stalwart of the most innovative teaching program in medicine in recent histary. He is the yardstick by which academic, clinical, and teaching faculty are measured, and his cantinued wisdom, enthusiasm, energy, and humar are amazing.

—DENNIS L. KASPER, MD, EXECUTIVE DEAN FOR ACADEMIC PROGRAMS, HMS

ethical and humane medical educational environment," she says. "As a mentor he has inspired, challenged, and modeled the best of academic medicine."

Students offer similar praise. "One gift Dr. Federman gives students is his sense that we are preparing not just for the next step in our training, but for a lifetime of being physicians," says Stephen Martin '02. "Students describe how he has influenced them to explore the ethics of a patient's care or the importance of a social history. At the core of Dr. Federman's perspective are the relationships of medicine—patient and doctor, teacher and student—which he models and honors for us in inspiring ways." Another student notes that "instead of relegating ethics to the 'touchy-feely' periphery of clinical care, Dean Federman made it central to our learning and fully deserving of our intellectual efforts."

New Frontiers

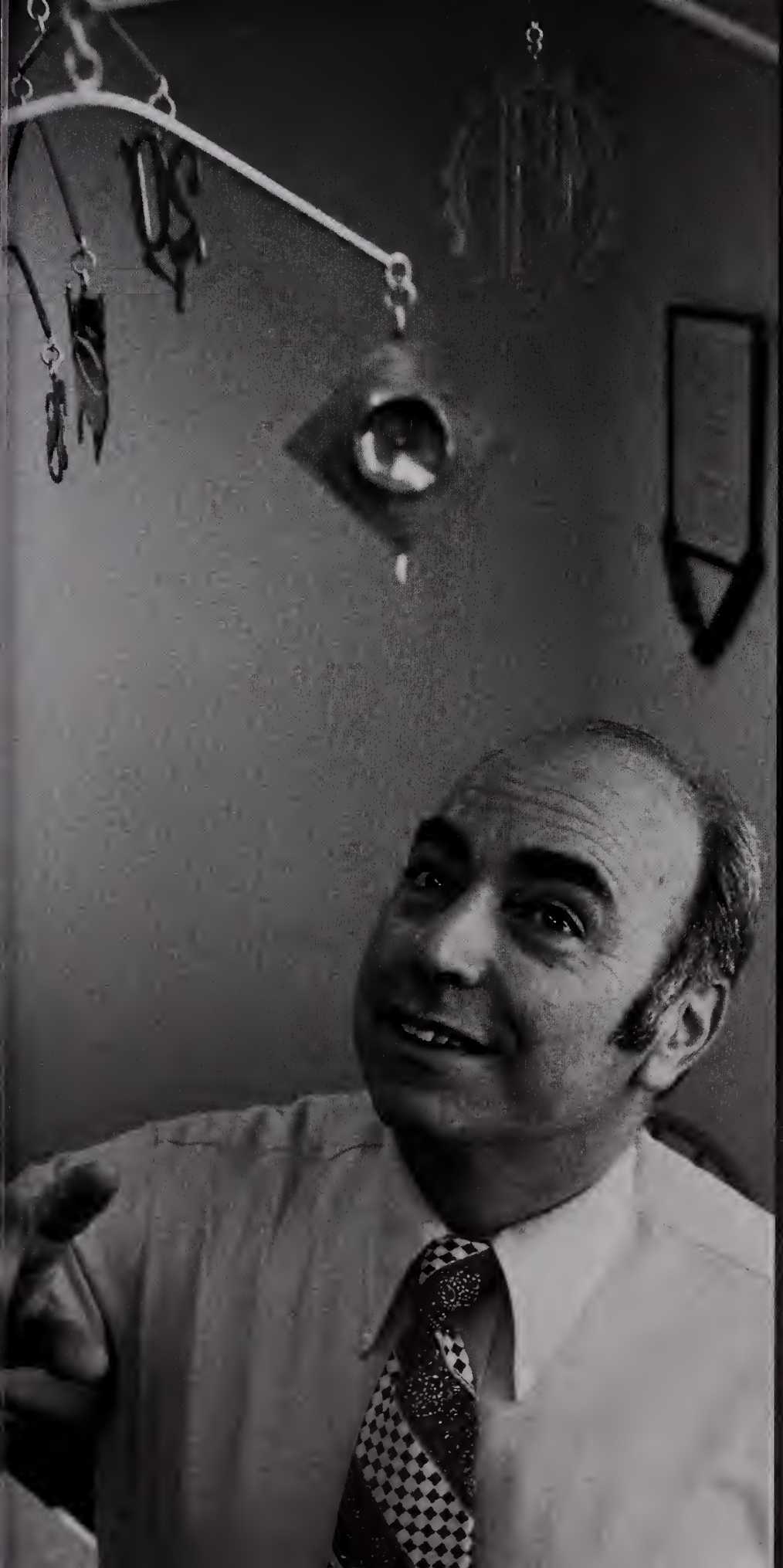
Federman's major research interest is disorders of sexual development. His 1967 book, *Abnormal Sexual Development*, has been credited as the first clear formulation of these disorders, bringing order to a hitherto disorganized field of study. He was the cofounder and editor of *Scientific American Medicine*, a unique loose-leaf continuing education program and textbook.

Federman is a member of the Institute of Medicine of the National Academy of Sciences and has served as regent, president, and master of the American College of Physicians. His awards include the Distinguished Teacher Award from the American College of Physicians, the Endocrine Society's Distinguished Educator Award, and Massachusetts Physician of the Year.

Since July, Federman has focused his energies on two goals to which he and Dean Joseph Martin are strongly committed. The first is working with hospital faculty and house staff to find ways to enrich the clinical learning and teaching experience for everyone without adding to time demands. The second is working with the Office of Resource Development to raise money for student scholarships with the aim of reducing graduates' massive debt burdens. He also looks forward to traveling with his wife and to spending more time with both his infant grandson and his mother's rehabilitated piano. "I've just found a teacher who specializes in older people going back to music," he says delightedly. ■

Tom Reynolds is a writer in the dean's office at Harvard Medical School.

PHOTO: MARK ROSENBERG



vintage presence

Eruditian and wisdom wedded to vibrant humanism and good will. It can truly be said of Dan Federman, as was said of Oliver Goldsmith, "He touches nathing that he does not adorn." Like a fine wine, the distinctive Federman bouquet seems only ta gain in subtlety and richness with the passing of the years.

—LLOYD H. "HOLLY" SMITH, JR. '47, PROFESSOR OF MEDICINE EMERITUS, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

moral beacon

I cannot imagine my career withaut the steadfast encouragement that Dan Federman has given me since my first day at HMS in 1978. Dan has never failed to embrace and celebrate the importance of caring far the paar, and his visian af medicine and the maral life has been the beacon that has guided my career.

—JAMES J. O'CONNELL '82, EXECUTIVE DIRECTOR, BOSTON HEALTH CARE FOR THE HOMELESS

man of wit and wisdom

Dan Federman is a consummate teacher, a respected clinician, a devated father and grandfather, and a witty toastmaster nonpareil. Any event at Harvard Medical School is brightened when his name appears an the program.

—ELEANOR GOSSARD SHORE '55, DEAN FOR FACULTY AFFAIRS, HMS

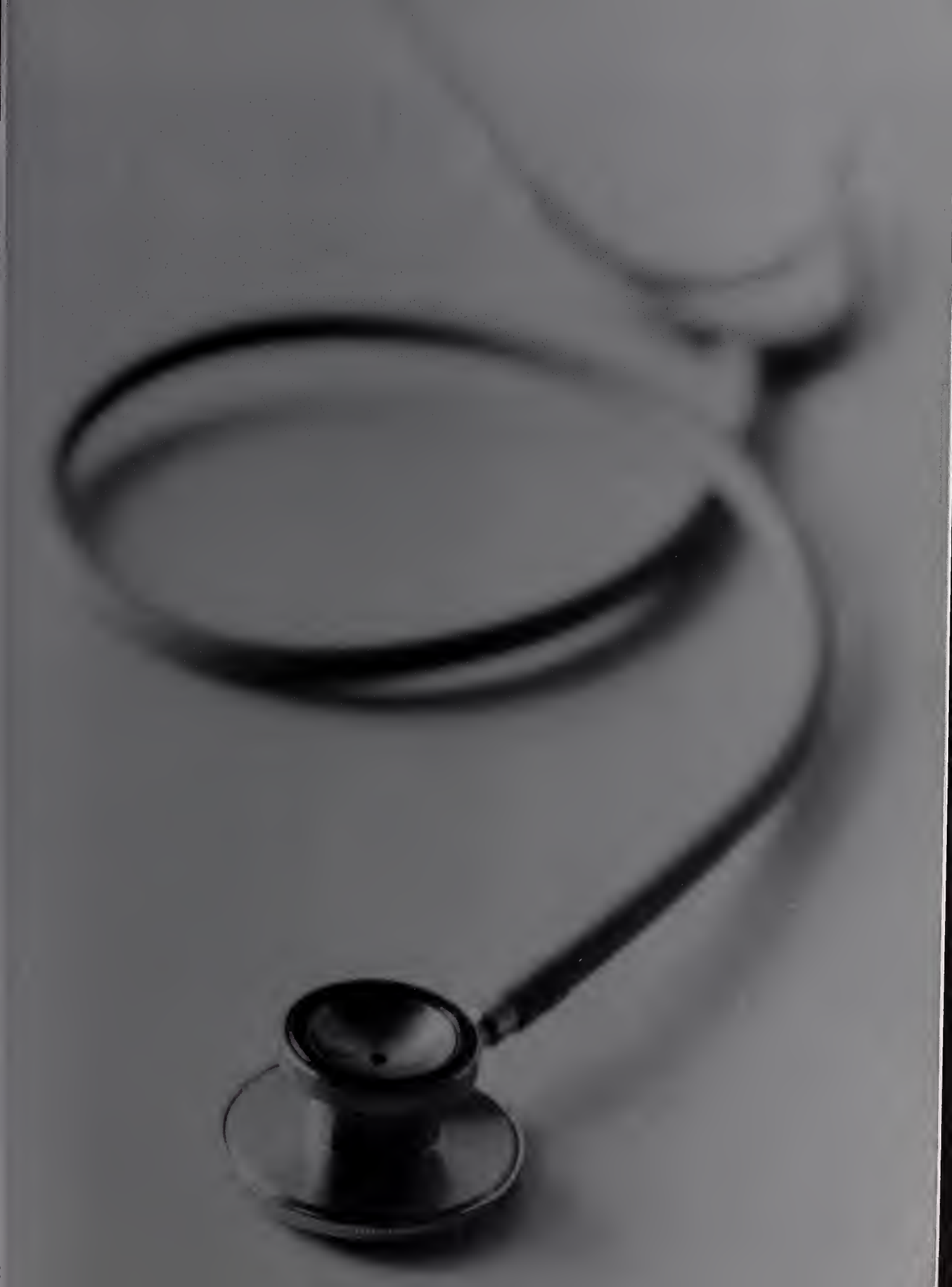
Reflecting on a range of personal experiences—from serious illness to professional athletic competition—Class Day speakers express gratitude for lessons learned on and off the wards

LESSONS in MEDICINE

by MICHAEL HIGGINS

THE THREE STUDENT SPEAKERS AT THE CLASS DAY CEREMONY ON JUNE 8 recounted their journeys to and through the Medical and Dental Schools. They also expressed their gratitude to family, friends, instructors, classmates, and patients for the various ways that each group has contributed to their success.

The first speaker, Neil Ghiso '00, recounted an unexpected and transforming medical education during his four years at HMS—being a patient. Describing his treatment for a malignant brain tumor, including surgery and chemotherapy, Ghiso said his experience made him understand what was most valuable in clinical practice: "Caring for your patients—just caring—is the most important part of medicine." While urging his fellow graduates to bear in mind the compassion component of their work, he lamented the current situation in which doctors, under managed care, are penalized for spending too much time with patients.



Ahmad Chaudhry, who received his DMD with honors, stressed the major influence teachers, family members, and classmates have had in the lives of the graduates. "Seeing a Harvard student taking those last few steps across the platform to receive a diploma and become a doctor," he said, "is like seeing a turtle sitting atop a fencepost—you know it didn't get there by itself."

The final speaker was former Washington Redskin Mark Adickes '00, who described his transition from athletic to academic challenges. On his first day at HMS, he told the audience, "the feeling was better than winning the Super Bowl."

For the second consecutive year, HMS graduated more women than men: of the 161 students receiving MDs, 85 were women. The class included 34 students from underrepresented minorities, who made up 21 percent of the class.

Excerpts from several Class Day speeches follow. ■

Michael Higgins is the editorial assistant for Focus.

PRIZES &

The following medical degree recipients were graduated with honors or special awards:

Amy Erin Adams
Kurt Isselbacher Prize to the senior demonstroting humanitorian volues ond dedicotion to science.

Alexy Darlyn Arauz, Andrew Danquah Atiemo, Anthony J-W Chen, Nakela Lenarda Cook, Michael Khanh-Le Tran
The Multiculturalism Award to the senior in eoch ocodemic society who hos done the most to exemplify ond/or promote the spirit ond proctice of multiculturolism ond diversity.

Fina Cañas Barouch, magno cum laude
Integrin-Mediated Neutrophil Adhesion and Retinal Leukostasis in Diabetes

Ritu Sonia Batra, cum laude
Predictors of Extensive Subclinical Spread in Nonmelanoma Skin Cancer Treated with Mohs Micrographic Surgery

Melissa Amy Bender, cum laude
Barriers to Contraception Access: A Survey of Impoverished Argentinean Women

Stephen Allen Boppart, cum loude
Endoscopic Optical Coherence Tomography Imaging of Barrett's Esophagus

John Alan Branda, cum loude
Functions of Cyclin D1 and p16^{INK4a} in Mammary Tumorigenesis

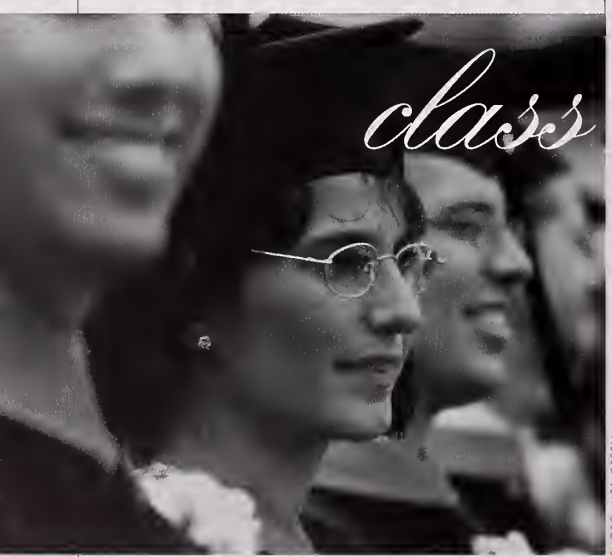


PHOTO: LIZA GREEN

class oath

Dean:
For two thousand five hundred yeors, doctors hove taken an ooth to offirm o commitment to their profession. This oath has served as a tribute to their teachers ond os o controct with their community. I now invite you, as a class, to share in this trodition and to articulote the ideols ond principles that will guide you in the years ahead.

Class:
Todoy, in the presence of family, friends, teochers, ond colleogues,
I dedicate myself to the profession of Medicine/Dentol Medicine.
I pledge myself to the service of humonity.
I will use my skills to care for those in need, without bios ond with openness of spirit.
I will strive to provide heolth ond olleviate suffering.
I vow to keep sacred the bond between doctor ond potient.
I will uphold the confidences entrusted to me.
I will use my knowledge for my patients' benefit.
I will respect my patients' dignity ond outonomy, both in living and in dying.
I embroce my duty to society.
I will advocate for the well-being of the community.
I will not use my skills controry to the laws of humanity, even under duress.
I promise to maintoin the honor, integrity, ond noble troditions of my profession.
I will work in diligent ond honest colloboration with my fellow proctitioners.
I will honor my mentors with respect ond grotitude.
I will teach ond odvonce the ort ond science of medicine.
I will practice my profession with conscience, dignity, ond compassion.
Above oll, I pledge thot the heolth of my potients will be my utmost concern.
This Oath I take solemnly, freely, ond upon my honor.

AWARDS

Anne Brewster
Bemy Jelin '91 Prize to that seniar wha mast demanstrates averall academic excellence with a career interest in pediatrics, ancalagy, internatianal health, ar psychiatry.

Rodney K. Chan, cum laude
Claning, Purificatian and Bialagic Activities af Canine Angiastatin and Endastatin

Howard Yuan-Hao Chang
Lean Reznick Memarial Prize far excellence and accamplishment in research: *Understanding the Death Machine: Kinases and Prateases in Pragrammed Cell Death*

Sharon Bingwen Chang,
magna cum laude
Characterizatian af the CD147–a3b1 Integrin Assaciatian

William Alan Copen, cum laude
The Evalutian af Human Strake as Defined by Diffusian-Weighted Magnetic Resanance Imaging

Meg Caroline Doherty
The NBI Healthcare Faundatian Humanism in Medicine Award ta a graduating medical student wha cansistently demanstrates campassian and empathy in the delivery af care ta patients.

Rose Du
James Talbert Shipley Prize far excellence and accamplishment in research: *Caexistence af Native and Denatured Phases in a Single Prateinlike Malecule*

Joanne Ruth Dushay, cum laude
Leptin and the Neuraendacrine Regulatian af Bady Weight and Repraductian: Insights fram Madels af Murine Obesity

Whitney Brant Edmister,
magna cum laude
Dr. Sirgay Sanger Award far excellence and accamplishment in research, clinical investigatian, ar schalarship in psychiatry: *Functianal MRI af Human Auditary Cartex Using Clustered Valume Acquisitians*

Timothy Albert Jackson, cum laude
Kinetic Studies af a Candidate Oxygen Sensar–Human Flavahemapratein b5+b5R

Ravi Vivekanand Joshi,
magna cum laude
Kinetics af Peptide Binding ta Class II MHC Malecules Measured by Fluarescence Resanance Energy Transfer

Kenneth Andrew Katz, cum laude
Risk Factars Assaciated with Develapment af Multiple Nan-Melanama Skin Cancers

Iris Kedar
Rase Seegal Prize far the best paper an the relatian af the medical prafessian ta the cammunity: *The Family Van: Engaging Clients at Risk far Paar Health Outcames and Pramating Health and General Well-Being*

Lena Heesun Kim
The Cammunity Service Award ta the seniar wha has dane the mast ta exemplify and/ar pramate the spirit and practice af cammunity service.

Nerissa N. Koehn, cum laude
Rabert H. Ebert Primary Care Achievement Award far excellence and autstanding accamplishments in the field af primary care medicine: *Reduced Efficacy af Mebendazale an Haakwarm Infectians Fallawing Periadic Treatment af Pemba Island Schaal Children*

Shaun Michael Kunisaki, cum laude
Peripheral Regulatian af Graft Versus Hast Allareactivity in Mixed Chimeric Miniature Swine

Adam C. Lipson,
cum laude
Olfactary Ensheathing Glial in Nerve Growth and Repair: An Investigatian af Neuratraphic Praperties and Patential Applicatians far the Injured Spinal Card

Shan W. Liu
Saciety far Academic Emergency Medicine Excellence in Emergency Medicine Award ta a seniar medical student wha has demanstrated excellence in the specialty af emergency medicine.

Erica Lee Mayer
The Gerald S. Faster Award in recagnitian af cantributians ta the student bady by virtue af serving an a student-faculty cammittee including but nat limited ta the Cammittee an Admissian.

Ricardo Daniel Moreno, cum laude
Intrapericardial Drug Delivery: Theary and Practice

Maureen Megan O'Brien
The New England Pediatric Saciety Prize ta the seniar wha in the apinian af peers and faculty best exemplifies thase qualities ane laaks far in a pediatrician.

Robert Francis Padera, cum laude
Cell Signaling by Fibrablast Grawth Factar 2: Investigatians inta Fibrablast Grawth Factar 2, Fibrablast Grawth Factar Receptar 1 and Heparin-like Glycasaminaglycans

Jon Fredric Strasser, cum laude
The Effect af Angiastatin an Gliama Grawth In Viva

Maureen An-Ping Su,
magna cum laude
The G185R Mutatian Disrupts Functian af the Iran Transparter Nramp2

Benjamin Chih-An Sun,
magna cum laude
Determinants af Patient Satisfactian and Willingness-to-Return with Emergency Care

Eunice Y. Tsai
Henry Asbury Christian Award far natable schalarship in studies ar research: *A Lipapalysaccharide-Specific Enhancer Camplex Invalving Ets, Elk-1, and CBP/p300 Is Recruited ta the TNFα-Pramater In Viva*

Marcus Lemar Ware
Harald Lampart Biamedical Research Prize far the best paper reparting ariginal research in the biamedical sciences: *Caexistence af Widespread Clanes and Large Radial Clanes in Early Embryanic Ferret Cartex*

PHOTO: LIZA GREEN

DANIEL FEDERMAN

A DOCTOR

In his parting words to the Class of 2000,

WELCOMED THIS CLASS A FEW YEARS AGO, AND TO HAVE THE honor of sending you off from Harvard now is a special one. Allow me to begin with a few preboarding announcements. First, when I say doctor, I mean doctor and dentist. I take seriously the degree of doctor of dental medicine.

Second, I want to settle a few rumors. It is true that I have been coming to this Quadrangle for 50 years, but it is not true that I'm going to review each of those years now. It is also true that despite how it may occasionally have felt, we have not told you everything. There is much more that we know and there's far more that nature knows, but this isn't the time to fill the gaps and I'm not going to do it now. It is also true that I consider today to mark the least important part of your medical education. I told most of you four years ago, and the neurobiology MD–PhD's ten years ago, that I consider your character and moral commitment more important than any understanding of disease, and that I therefore consider your parents and grandparents honorary members of the faculty of HMS. But it is not true that we are going to call each of those people up here for a certificate and a parking decal; we just don't have enough to go around.

Now, I know you have two serious questions: What does the title of my talk, "A Doctor in the House," mean? And how long is it going to last? Well, I'm going to give you three meanings of doctor and three meanings of house, and it's going to take about 12 or 13 minutes.

First, there is the doctor as in patient/doctor. The clinical encounter is the most extraordinary interpersonal moment in human history. When you meet a new patient, you walk into the room of a total stranger and, within minutes, especially these days, you're asking questions that have no place in any other human interaction. Intimate aspects of the person's past, sexual practices, sexual preferences, and other things—there isn't another human exchange in which you

The physical exam is an invasive

IN THE HOUSE

Dean Daniel Federman evokes compassion, common sense, and community

ask the same questions. They are at least nosy; next, prurient; and even harassing, but somehow the person accepts that you may ask them and he or she can answer them.

Second, the physical exam is an invasive moment, one that, again, has no place anywhere else in human exchange, but it's accepted in the medical setting, however embarrassing it may be. Third, the acceptance of drugs that change mood, alter mental state, and have many other profound effects. At the extreme, think of general anesthesia. To what stranger would you comfortably roll up your sleeve, bare the antecubital space, and let yourself be rendered unconscious? And finally, the surgeon's art: amputation, organ transplantation, drainage of an abscess, removal of a tumor. These acts would be felonies in any other setting. What legitimates them is that you walk into the room and say four simple words: "Hello, I'm Dr. Federman."

So the first meaning of doctor is to deserve to be in that role. And I want to take a minute to tell you an anecdote. I serve as an attending at Brigham and Women's Hospital and Massachusetts General Hospital, and I come on around ten o'clock, and the students and residents have already seen the patients, so I'm not in charge of the emergency care. But before I ask what's wrong, I try to get to know the person a little bit: where are they from; what do they do; maybe something about their school; if it's a mother, who's taking care of the kids. And pretty soon, we've uncovered something I have in common with the patient, and we can work from that to establish a relationship.

About ten years ago, I came onto service one morning and everyone was laughing, so I knew something was up. They said to me, "You don't really know all those things about those people, do you? You're just putting it on to make them feel good," and I said, "No, it's genuine—why don't you try it?" We went to the bedside of one of the patients and the student questioned in this way the patient he had worked up the night before, with whom he had spent an hour and a half. Instead of asking questions about the history and physical exam, he started to get to know her. In the midst of his third question, she yelled out, "Harry Duchesne!" She and this student's uncle had sat next to each other manufacturing hats for 18 years. It hadn't come out the night before even though she knew his name perfectly well, because both were captured in the medical history and not yet in the relationship. So my first suggestion is to think of the doctor's role as a relationship within which the science and the questioning and the decisions unfold.

The second part of belonging in the relationship is one we've emphasized a great deal in your education: the progress in medicine is very fast and it's going to be ever faster. We have stressed taking responsibility for your own education because we believe it is a moral responsibility to bring up-to-date information into each patient's room. If you fall behind and don't arrive with the most modern science to put at that person's disposal, you've missed one part of the relationship.

Now what about the first meaning of house? The first meaning of house I refer to is your homes. In several alumni questionnaires, we found that our graduates love their profession and are very excited by their work, but many of them comment on the struggle of combining their professional responsibilities and their homes, their families. So I would suggest you take that as a challenge and leave space for your loved ones and their needs, including their professional needs.

The second meaning of doctor is teacher. It is an actual translation of the word, and I refer to what you're about to be doing. In two or three weeks, you will join a school as a key part of its faculty. In that role, you'll actually have, with almost no preparation, one of the most difficult teaching assignments in the university. To take care of patients, to go

moment, one that has no place anywhere else in human exchange.

on with your own learning, and yet to be responsible for the learning of students under you is a remarkable assignment. It's one in which every generation takes a role and has a responsibility for the next one. Despite your current anxiety about this challenge, I can assure you your own education will come together. Pretty soon, the right clinical action will be ingrained and almost automatic. You'll be inclined to forget how recently you looked at the same events and found them very mysterious.

I want to give you a kind of mantra for the students who come behind you in your roles. First of all, form a relationship. Find out a little bit about the student; share a little bit about yourself—it gives you a platform for learning. Here are eight simple words to take from this talk: think out loud; stick to basics; be kind. If you think out loud, you show the person a path in which to follow you, and yet it will quickly become clear where you don't know it all and the process becomes joint. If you stick to basics, that's what most people need. Most of our mistakes are in omitting one of the basics, not in making a wrong choice among rare possibilities. And finally, be kind, which shouldn't need any emphasis.

The second teaching role is teaching patients and their families. In every known survey of what doctors do, we score poorly on this item. Patients say that we don't make things clear; we don't listen; we don't understand their particular concerns about a problem. Here again, I've found the same guidelines—think out loud, stick to basics, be kind.

Now the second meaning of house: I mean here, the house of medicine and the society in which medicine is privileged to function. Practically no one is really happy about the current state of health care. Patients feel rushed and

AN UNEXPECTED

Confronted with a life-threatening illness, one medical student learns the power of

AS I LOOK ACROSS THE FACES OF THE PEOPLE GATHERED HERE TO honor us, I can't help but think that these honors are misdirected. Incredible sacrifices have been made not only by those in the medical community, but also by the people sitting right behind us, the people who have traveled from all over the world to honor us—our loved ones.

It's our family and friends who taught us the core values that no one else really could; all the while never expecting to be repaid. How can we thank them? How can we repay our teachers and our loved ones for their decades of changing the world for us?

Well, I believe that there *is* a way. And we can learn it from them, what their professors gave to them, and what their parents did for them. And by that tiny gleam you can barely catch in their eyes, that distance you can faintly hear in their voices, you begin to understand how they are thanking their own professors and parents through us. I believe that we are the next chapter in a long, long story; we are a gift of gratitude from the generation before us, to the generations past. And now we can fully understand how we can repay them, by making this world a better place—for our children, for our students, for our patients.

Now, I firmly believe in the value of medical research, but it isn't what I learned from science that I want to share with you today. Nor is it everything I learned as a medical student, or a fledgling doctor. What I want to share with you is what I learned as a patient.

I started having seizures more than two years ago. And I soon found out that they were due to an oligodendroglioma, a type of malignant brain tumor. The MRI showed that the tumor was too big to remove fully, so surgeons at Brigham and Women's Hospital just took out as much as they could.

We are the next chapter in a long, long story; we are a gift of

unheard; doctors feel harassed and frustrated. We have 45 million uninsured people in our country and many more underinsured. We aren't getting measures of known effectiveness to all who need them. We still have patients in this country going on dialysis because their hypertension was never treated. For nonwhite babies, we rank no higher than 50th in the world in vaccination. Can you imagine what else we don't do that we already know how to do?

A new order of health care, a new set of arrangements is needed, and I urge you to get involved in your hospitals, schools, medical societies, and even the legislature to bring about a better world. This is why we've enlisted you in problem solving, rather than pretending that the answers are always known.

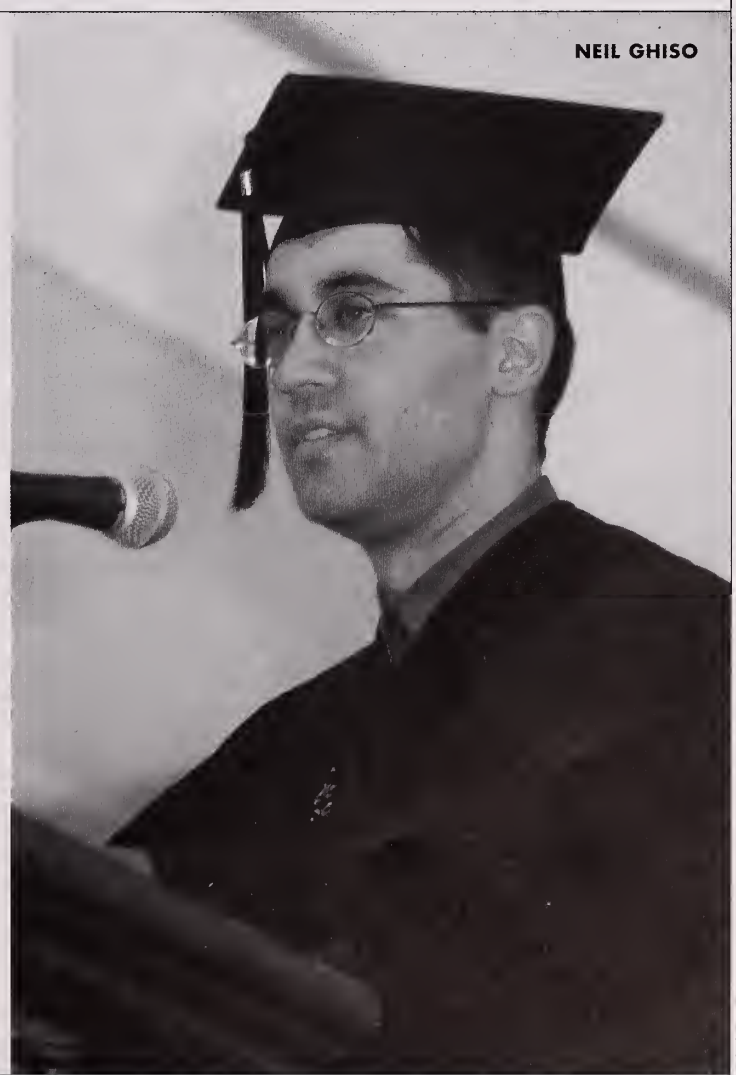
Finally, a third and local meaning of doctor. You're graduates of these two schools: medicine and dentistry. You're minutes away from accepting an awesome responsibility, being a doctor and a teacher, and we are proud that you learned part of it here. In an Internet age, we have a capacity to remain connected with you as alumni that never existed before and, in this millennial year, with that type of power available to you and to us, we're going to do our very, very best to continue your connection to Harvard Medical School.

Look around you for a moment for one last time at the third meaning of house—your school, these buildings, the people. You can forget all or much of what you learned here and replace it with richer and better information. But we in this house hope you never forget the dreams, the hopes, the aspirations, the standards that this old house has for every one of its youngest doctors—yourselves. ■

Daniel D. Federman '53 is senior dean for alumni relations and clinical teaching at HMS.

INSIGHT

compassion alongside the marvels of science



NEIL GHISO

PHOTO: LIZA GREEN

Unfortunately, the tumor continued to grow, and soon I was having three seizures a day, even while taking more than 20 pills. So I underwent chemotherapy for the next year.

Although chemo certainly helped, unfortunately I still have seizures. I keep track of them every day, and since the beginning, I have had well over a thousand. And because of them, I had to give up driving completely. I also just had another surgery five months ago, when an electronic anti-seizure prosthesis, a pacemaker-like device, was implanted in my chest, pulsing my Vagal nerve every five minutes. One of its side effects is an alteration of my voice, through the recurrent laryngeal nerve. So when you hear me "get something stuck in my throat," which is what I tell people, it's not because I really have something stuck in my throat. If you were to pay attention, you'd notice that I get something stuck in my throat exactly five minutes later.

gratitude from the generation before us, to the generations past.

Fortunately, it appears that some combination of the device and medications has led to a decrease in my rate of seizures, and for that I am thankful. As for the tumor itself, it's still there. It's estimated that there is a 30 percent chance of fatality. Upon hearing this, a close family friend smiled and said, "You know, things could be worse. It could have been a 30 percent chance of survival." And you know what? He's absolutely right.

What is the important component of medicine that I learned through being a patient? Could it be the MRI, which enables us to see my tumor? Or maybe it's the chemotherapy, an approach that appears to have slowed the tumor's advancement. Or perhaps it's the incredible brain surgery—surgery I underwent while kept awake.

Which of these do I feel is most important? As truly valuable as they all are, it really is none of them. You see, it turns out that because of the nature and size of my tumor, there was no consensus about my undergoing surgery. One highly respected neurosurgeon I saw recommended surgery, while another felt strongly that we should not proceed. I had to choose one, and I chose to proceed—not out of any false hope, or any study, or because of the doctor's incredible reputation, but because of the look in his eyes. I chose to get my head shaved, my skull opened, and part of my brain—my very mind—taken away. All because he—Dr. Peter Black—truly cared.

Medicine has come an incredibly long way over the years. And because of our doctors and professors, not only has the science of medicine advanced, but also the very thinking of medicine itself has changed. And yet, the most important aspect of medicine, that which we talk about so little, hasn't changed at all. Caring for your patients—just caring—is the most important part of medicine.

It's ironic, because compared to all the complicated aspects of medicine, the stuff that we've spent so much time on these past several years in medical school—things as complex as the MRI, or chemotherapy, or neurosurgery—compared to all of this, caring is really the simplest of all.

And, of course, the ultimate irony is that caring is the one thing you can't be taught. Understanding the MRI, or chemotherapy, or neurosurgery—that all comes from your head. But caring, truly caring, that comes from someplace else. Yet because of its almost unintellectual origin, caring

I chose to proceed—not out of any false hope, or because of the

PHOTOS: LIZA GREEN

isn't given the same level of respect as most other aspects of medicine, isn't emphasized to the same degree.

What textbook taught us how to befriend our patients? What class taught us how to inspire those we cared for? Is it sensible to remember a patient's cholesterol level, but not his name? And why is it that today, while we can cure more diseases than ever before, more patients are turning away, turning to different kinds of medicine than ever before?

It's because we're doing only half of medicine. We're doing the science part, but we've forgotten the care part. That's why I brought this patient's chart: not to show you all the important things that are in there, but to show you all the important things that are not.

You see, this patient is me. And I am only here with you today because I was lucky enough to receive the medical treatment that doesn't appear in this chart. I'm lucky in that my doctors, with my family and friends, have been working hard not only to reduce my seizures, but also to raise my spirits. And they've been fighting not only to kill off my tumor, but also to keep alive my hope.

But here in my chart, which coldly follows an official approach to medicine, you can't see all of that. You can read plenty about my seizures and my tumor, but what does it say about my spirits and my hope?

Nothing. I'm standing here with you today because of both science and compassion.

So, to repay the generations before us, let's bequeath this gift to the next generation. Let's teach them how to truly care for their patients. And we can do this only by teaching them to grant care the same degree of respect that we give the MRI, or surgery, or medical science in general.

How can we make that happen? I think the first step would be to stop penalizing physicians for spending time with patients. Today, because of our advances, our patients' cases are more complex than ever before.

But today's doctors are not only not encouraged to spend more time with their patients, they are actually penalized for

doctor's incredible reputation, but because of the look in his eyes.

doing so. In fact, we could go even further. Rather than have insurance companies dictate the entire basis for a doctor's compensation, we could let patients thank their doctors by rewarding them through insurance companies.

By asking patients to express how well they've been treated, we could base a small portion of the insurance bill on what they said. For the first time, this would let patients have a say in the value of doctors.

Such a shift would change the lives of patients' loved ones. A subtle message would begin to reverberate throughout the health care system, even from the hospital bills. What loved ones would see is that patient care gets billed along with lab tests, radiologic studies—everything else.

But what they would slowly be internalizing is that the compassion the patient receives—which is often all their loved ones can really offer them—is every bit as valuable as what doctors provide. While this may not sound like much, I can assure you that

FROM JOCK TO DOC

A former Washington Redskin describes his journey to orthopedic surgery

ALTHOUGH THE GEOGRAPHY AND CULTURES FROM WHICH WE come may vary significantly, the journey here began the same way for all of us: with the receipt of an acceptance letter.

I remember mine well. At the time, I was expecting to attend medical school at the University of Virginia, where I had already been accepted. I was certain that the rejection letter from Harvard would soon arrive. I pulled into my driveway, and as I approached the front door, it flew open and my wife leaped into my arms screaming, "We're moving to Boston!"

After the ringing in my ears stopped, my first thought was: what was that admissions committee thinking? There I was, a 35-year-old, 6′5″, 300-pound guy. Harvard wouldn't even have a white coat to fit me (and it didn't). Even with my acceptance letter in hand, I thought some mistake had been made. I had been playing football for 23 years and had used my brain for nothing more than to provide ballast for a football helmet.

When I walked into the Medical Education Center for the first time, it felt better than winning the Super Bowl. (For those of you who don't know me, I can literally make that distinction.) As I stood there, I spotted the tables with the orientation packets, and I almost had a panic attack. What if I didn't find one with my name on it? Although I am a firm believer in the tutorial system, I didn't want to teach my classmates about heart attacks on the first day of class.

Despite all my insecurities, here I stand four years later wearing this regal gown. And I now believe I know why we were chosen from a pool of thousands to benefit from this special opportunity. The two things that really set us apart from the other supremely qualified applicants were our diversity and our potential.

The incredible diversity of this class is what makes our education so special. Arguably the most useful skill a doctor can possess is the ability to communicate effectively with colleagues and patients. Our patient base and coworkers are going to mirror the melting pot that is this class. Practically every size, shape, color, culture, religion, and sexual orientation has ample representation here. (You notice I start with size.) Every day for the last four years I have had the privilege of working with, learning from, and on rare occasion relaying some useful bit of information to my classmates. Each of our interactions, in large part due to our differences, has stimulated debate and fostered growth.

The list of synonyms for potential includes: likely, probable, prospective, budding, and impending. Before arriving at HMS, I thought the list of synonyms for potential consisted of bone structure, 40-yard-dash times, vertical leaping ability, bench pressing, and, of course, body hair. Let me elaborate: I arrived at Baylor University on a football scholarship two weeks

I had been playing football for 23 years and had used my brain

even this small sense of empowerment to both patients and their loved ones is truly life-sustaining.

But enough dwelling on the future and the past; today is a day to celebrate the present. On this special day, we the Class of 2000 are surrounded by the generation before us. We are gathered with our teachers and families, gathered to honor and celebrate one another.

We honor our professors, who taught our minds to practice medicine. We honor our families, who taught our hearts to care for patients. And today, we, the students, are honored, both for completing one journey and for beginning another. For accepting the challenge that lies ahead of us, the same challenge that lay ahead of every generation that has come before us. And that challenge is to continue in the work that those before us have so nobly carried out, and today, so faithfully entrusted to us. ■

Neil Ghiso '00 is a fourth-year student at Harvard Medical School.

MARK ADICKES

PHOTO: LIZA GREEN

before the start of class to participate in twice-daily workouts. For the uninitiated, two-a-days consist of long hours, coupled with physical and mental exhaustion. In other words, they are very much like residency, only 258 weeks shorter. At the time, my two idols were Keith Bishop and Billy Glass, two All-American offensive linemen. After my first workout, I found myself in the showers with these two behemoths. I couldn't help but notice that they were completely covered in thick body hair. I immediately thought, If this is what real football players look like, I don't have a chance!

When I arrived at HMS, Keith Bishop and Bobby Glass were replaced by Neda Ratanawangsa and Marty Smith. No, I didn't shower with them and they aren't covered with body hair, to the best of my knowledge, but they forget nothing.

These guys are so smart I found myself having a flashback. I was transported back to the showers and found myself thinking, If this is what real future doctors are like, I don't stand a chance. Well, I've muddled through just fine, thank you very much, and although it would be nice to remember every fact I have ever read, I have every intention of realizing every ounce of potential that the admissions committee saw budding four and a half years ago. I have no doubt that every one of you will do the same. To whom much has been given, much is required, and we have all been given much more than our fair share. I humbly thank my wife, my classmates, my professors, and the patients whom I have had the privilege of taking care of for transforming me from a jock to a doc.

I want to conclude with a poem written by a rather obscure poet: me.

A one, two, three, four, five, everybody in the front row stand up and jive.
We're all doctors starting today, no one else is left to stand in the way.
The specialties are covered A to Z, fixing broken bones is what does it for me.
So head on out and set the world on fire, let the profs sit back, smile, and admire.
No matter the ailment let the patients come, cause we'll be trained to handle every one.
We've got some internists in the class.
We've got some doctors to handle the gas.
We'll take care of the kiddies and old folks too.
Some nipping and some tucking we can do for you.
Broken bones are no problem you see,
Cause six other orthopods are graduatin' with me.
If you're feelin' anxious and down don't fret,
Cause on our psychiatrists place your bet.
Let all disease in the world beware,
Cause we'll be doing research because we care. ■

Mark Adickes '00 is undertaking a residency in orthopedic surgery at the Mayo Graduate School of Medicine in Rochester, Minnesota.

for nothing more than to provide ballast for a football helmet.

ON THE THRESHOLD

Three deans call for collaboration to spur discovery and foster improved health

by JOHN FLEISCHMAN

PUT THE DEANS OF THE MEDICAL, DENTAL, AND PUBLIC HEALTH SCHOOLS under a big tent on the Quadrangle. Provide an audience of medical alumni from the Classes of 1931 through 1995. Throw in Boston's highly unsettled June weather. And hear the three deans call for their disciplines to mix and meld under a bigger tent of science and public service for the new millennium.

Such a metaphorical gathering place is needed, the deans said, to make the unexpected connections between basic science, clinical application, and clear-eyed public policy that will extend biology's promise and tackle the grim realities of global health. And Harvard, the deans assured the alumni, will do its part to bring together today's disparate disciplines.

Dentists must become true scientists and "physicians of the mouth" to stay relevant in this new research-driven world of biomedicine, said R. Bruce Donoff '67, dean of the Harvard School of Dental Medicine. "Dental research is no longer caries

PHOTOS: STEVE GILBERT

THREE HARVARD DEANS: From left, R. Bruce Donoff, Joseph Martin, and Barry Bloom

and periodontal disease, but genetics, molecular biology, and tissue engineering." Yet, Donoff wondered, "Will all these very exciting discoveries lead to dentists who can think like scientists or at least appreciate the value of discovery to everyday practice?"

The public health perspective is almost like a second set of glasses, said Barry Bloom, dean of the Harvard School of Public Health, and this particular vision is vital to the new mix of basic research and clinical medicine. At the School of Public Health, a new set of lenses means a new set of numbers. Ask any Harvard medical student for the leading causes of death, Bloom said, and you will learn that of the 2 million Americans who die each year, 33 percent die of heart disease, 24 percent of cancer, 14 percent of injuries, and 7 percent of stroke.

"If you posed the same question to my charges, you would hear a different answer," Bloom said. His students would list the "real" causes of death as 19 percent from tobacco, 15 percent from poor diet and inactivity, 5 percent from alcohol, 1.8 percent from firearms, and 1 percent from motor vehicles. "When you look at it our way," he added, "49 percent of all the deaths that occur each year in the United States are, in fact, preventable."

Advances in bioscience have never been so sweeping, yet the scientific cultures that produce them have never been so isolated, added Joseph Martin, dean of HMS. Martin said that even around the Quadrangle, those in fundamental science have little to do with those in biomedical research. Both groups have too little contact with researchers at HMS-affiliated hospitals, who also teach and practice medicine. In the post-genomic world of this new century, Martin said, HMS must work to break down the division between the Quadrangle and the hospitals so that cross-pollination of ideas and techniques can occur.

Excerpts from the deans' Alumni Day speeches follow. ■

John Fleischman is a science writer for Focus.

THE ROAD

The dean of the Harvard School of Dental

THE WAY FORWARD FOR THE HARVARD SCHOOL OF DENTAL MEDICINE is, paradoxically, not to look ahead, but to look around. So let us begin by glancing around and back. In May of this year, "Oral Health in America: A Report of the Surgeon General" was released. I hope it has a great impact. Unfortunately, however, the landscape of innovation in dental education and practice is littered with unimplemented reports and recommendations.

In 1995, for example, the Institute of Medicine strongly suggested that dental schools align themselves more with their parent universities and affiliated medical schools, but few faculties have heeded this advice. Why then, should this recent surgeon general assessment be different? First, it is the first report on oral health by the surgeon general. Second, it is by the people and for the people, neither by educators and practitioners nor for them. Its purpose is "to alert Americans to the full meaning of oral health and its importance to general health and well-being." Its major findings, I believe, will inform the road ahead.

There is no doubt that disparities in oral health care affect the daily lives of large portions of our population. The development of a caries vaccine is under way and, although we in the United States think dental decay has been eliminated by fluoridated water supplies, the report makes clear that this benefit is lacking both in large parts of our country and in the world. A vaccine, which would have tremendous impact, will happen in the next 25 years. Yet that event—like so much of the progress to date—does not, by any means, eliminate the need for dental care.

A recent issue of *Time* magazine projected tissue engineer as the number one job of the new century. With the cooperation of HMS, the Harvard School of Dental Medicine created the Craniofacial Tissue Engineering Center in 1998. Its goal is to create a biologic tooth, one that we

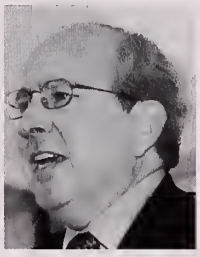
Disparities in oral health care

AHEAD

Medicine calls for a renewed spirit of science in the dental profession

hope might replace the current successful dental implants. This biologic tooth will be less expensive, more available, and easier to place. Along the way, we expect to learn a great deal about bone-tooth interactions at the molecular, genetic, and cellular levels, and to educate and train a generation of students and postdocs who will eventually help many patients.

The same issue of *Time* also predicted that the role of orthodontists will fade. The demise of orthodontists is predicated upon the development of computerized navigation devices. These devices will permit the programmed production of orthodontic wires to complete a case. They will also make possible devices that fit over the teeth like plastic splints. The splints would slowly move teeth and would be adjusted periodically based upon computer guidance. But the truth is that specialists in dentistry exist for a very good reason; I doubt that our need for the orthodontist's specialized knowledge of growth and development and experienced clinical judgment will disappear. I do, however, see opportunities in the training of current specialists like pediatric dentists and orthodontists to shorten the length of study and enhance experience through interdisciplinary effort.



R. BRUCE DONOFF

Despite the promise of exciting research breakthroughs on the horizon, however, dentistry finds itself at a difficult crossroads. Worrisome statistics suggest that there will soon be more dentists retiring than graduating. The critical year is 2015, but we are already facing a shortage of 300 faculty positions in dental schools. Who will train future teachers and academics? What should be the purpose of their education and training?

This new century does not mark the first time that the field has stood poised on the brink of decisive change. In 1955, Theodore Rosebury, an eminent microbiologist at the now defunct Washington University School of Dentistry, pointed out that comparing dentistry to medicine is unfair, and that specialties such as dermatology and ophthalmology make for more appropriate comparisons. (In this faculty of medicine, we consider dental medicine to be a branch of medicine.) According to Rosebury, between 1925 and 1955, "medical schools and indeed the whole of medical practice had undergone a transformation under the direct influence of experimental science."

Critical to this transformation was the idea that disease can be understood and, if understood, controlled. While Rosebury did not imply that medicine as a practice is any more scientific than dentistry, he did suggest that practitioners of medicine and dentistry need to *understand* science, but not necessarily to *be* scientists.

Rosebury believed that the spirit of science was totally accepted in medicine, yet he lamented that no comparable transformation had as yet taken hold in dentistry. He admitted that while it is necessary to learn something about science to be a dentist, one could still forget nearly all of science and yet still be a successful practitioner or—in some areas—even a successful dental teacher.

Rosebury believed that the single most important factor responsible for this failure of transformation was that dental research, despite its formidable development, had not yet solved any of the problems of dental disease, and had indeed contributed little to the everyday practice of dentistry. Fluoridation, an obvious exception, was a triumph of public health measures.

Is the situation different today, almost 50 years later? Most of the advances in dentistry have come in the areas of instrumentation, methods, and materials rather than

affect the daily lives of large portions of our population.

the understanding of disease. And, although the dental profession's valuing of science and willingness to deal with a broader scope of medically compromised patients improved considerably in the 1970s and 1980s, progress has not been enough. The proof, during the last decade, that periodontal disease was an infectious disease, treatable by antibiotics, did not have the transforming effect on dentistry that it should have had.

Other landmark applications of science hold out the promise to change the face of dentistry in profound ways. Gene chips, for example, offer the potential to compare normal, premalignant, and malignant tissue separated into cells by laser dissection microscopy. Might this lead to earlier diagnosis and therefore improved prognosis? And might this lead to a true understanding of malignancy in epithelial cell tumors? Gene therapy offers the promise of providing new genetic material via mucosal grafts or viral vectors into salivary glands.

Some day soon, a sample of saliva might provide diagnostic information about a patient simply and inexpensively, and better than blood. But why teach genetics to dental students if it has no relevance to practice?

Another example is the burgeoning area of craniofacial biology, which directly relates to developmental biology, genetics, and the understanding of disease. One day, cleft palate will be understood and controlled rather than treated. Finally, the accumulating data that suggest relationships between oral health and systemic health—such as periodontal disease, heart disease, and low birthweight infants—must make science more relevant to dentistry.

Will all these very exciting discoveries lead to dentists who can think like scientists or at least appreciate the value of discovery to everyday practice? Dental research is no longer caries and periodontal disease, but genetics, molecular biology, and tissue engineering.

Improvements in our education system nationally let us produce much more than mechanistically oriented dentists. The first-ever surgeon general's report marks a milestone for dentistry because the profession can meet the challenges it outlines. I am convinced that a small number of the 54 dental schools in this country will truly be broadly based in patient care, discovery of new knowledge, and health care policy. I can assure you that the Harvard School of Dental Medicine will be one of them, maintaining its place as an educational experiment for the profession. ■

R. Bruce Donoff '67 is dean of the Harvard School of Dental Medicine.

AN OUNCE

The dean of the Harvard School of Public Health

E IN PUBLIC HEALTH APPROACH PROBLEMS FROM A PERSPECTIVE that I believe differs from, yet complements, that of clinical medicine. Our concern is the prevention rather than the cure of disease. Our focus is on populations rather than individuals. And our methodology is a process rather than the individual great moments of success in medicine. The picture in the *New York Times* of the doc in the white coat and the baldheaded kid who is going to survive his cancer doesn't really reflect the questions of where the drug was developed, how the trial was designed, where the trial was conducted, and who analyzed it. We're there somewhere, but seldom in the picture.

We also work in areas that are not altogether popular in medicine, but are highly necessary to society, such as environmental health, radiation biology, insect-borne and tropical diseases, nutrition, and violence. These are public and population problems not well-suited to individual solutions.

I could give you a long list of accomplishments in public health, but I'll summarize them in a single statistic. The greatest increase in life expectancy in the history of recorded time occurred within the first 60 years of this century. That is before the great new drugs and medical interventions that are changing the quality of life were introduced. In 1900, life expectancy in the United States was 47 years. It's now close to 80.

I would love every medical student to view the world through two sets of glasses. If we ask an HMS student to name the major causes of death in the United States, that student will know that of the two million deaths each year, 33 percent come from heart disease, 24 percent from cancer, 14 percent from injuries, and 7 percent from stroke.

If you posed the same question to my charges, you would hear a different answer. You would hear the real causes of death: 19 percent from tobacco; 15 percent from poor diet and inactivity; 5 percent from alcohol; 1.8 percent from firearms; 1 percent from motor vehicles.

Forty-nine percent of all the deaths

OF PREVENTION

urges physicians to incorporate a broad perspective into their medical practices

When you look at it our way, 49 percent of all the deaths that occur each year in the United States are, in fact, preventable. "Postponable" is the proper word. We all die sometime, but we don't have to die from preventable illness.

What are the agendas for public health? We have not yet eradicated polio. We have all kinds of childhood diseases around the world, for which vaccines exist, and we desperately need new vaccines for AIDS, tuberculosis, and malaria, among others.

A major problem in public health is what we call the coming epidemic of chronic disease. If you were the minister of health in a developing country, you would have to face the same problems we face here with an aging population—increasing chronic disease—along with the additional burden of having one in five children dying of an infectious disease without the resources to deal adequately with either of these problems.

BARRY BLOOM

Another agenda for public health, and probably the best known, is ascertaining the extrinsic determinants of disease—those things in our social, economic, and physical environment that predispose to or prevent disease. That is the traditional focus of epidemiology. In the next century, the Human Genome Project will open up a new range of intrinsic risks for disease: genetic potentiality.

Now, I wasn't being completely accurate when I said that public health focuses on prevention while medicine focuses on cures. The distinction is now being blurred. For example, tamoxifen, which used to treat breast cancer, is now being used to prevent breast cancer in women with high genetic risk for the disease.

We know that mortality from cardiovascular disease has been reduced by a third in the last decade. Only 21 percent is due to what we would call primary prevention—eliminating dietary inadequacies, inactivity, and other risks. Most of the reductions in death are due to preventive treatment of hypertension and cholesterol. And so our roles are now more collaborative and more united.

There is something that I call the "medical curve," and it's bimodal. When a patient comes in to see you, you have a decision to make. Does the patient have a disease: yes or no? Does the patient have a risk: yes or no? In that binary world, you make crucial medical decisions. But if you look at the epidemiology of almost any interesting disease, it's not a bimodal curve. Cholesterol, hypertension, and heart disease are single, broad unimodal curves.

If you were to extrapolate the medical paradigm to a public health statement, you would treat only the people with the greatest risk. And if we treated the people with the highest measurable risk for cardiovascular disease, with high cholesterol in the top range, and cured or prevented each of those from suffering the consequences of that risk, we would reduce death from heart disease by 8 percent.

Most deaths from heart disease occur in the middle of both the cholesterol curve and the hypertension curve. And while you must make individual judgments, to protect or treat each individual patient, the challenge for us is both simple and difficult to achieve. It's to shift the whole curve to the left.

If we could shift the average cholesterol of the whole population by 10 percent, we would have a 25 percent reduction in deaths from cardiovascular disease and strokes. If we could lower blood pressure by 5 percent, we would reduce deaths from strokes by 30 percent.

I mentioned the excitement about the genome project and its potential to identify intrinsic risks. From the public health perspective, it is a new look at prevention. There is a

that occur each year in the United States are, in fact, preventable.

need, however, for humility. Take sickle cell disease, for example. We know the gene, the mutation, and the three-dimensional structure of the protein, yet we still can't prevent the disease.

The second consequence is the targeting of interventions to the level of the individual. Each of us has a different set of genes, a different set of susceptibilities. And I see "boutique medicine" on the horizon: genetic screens will be used by those who can afford them. But what about those who cannot? The best I can hope for is that, in the course of studying individual treatments and preventions, there will be outcomes such as vaccines that can be used on a population basis and at low cost to prevent disease in both rich and poor.

This issue leads us to the central problem in public health—the disparities in health in this country and abroad. Life expectancy in the United States is about 78 years. Life expectancy in Sierra Leone is about 40 years. When I say that, the immediate response tends to be, "But that's Sierra Leone. What has that got to do with us? It's a developing country, so that's not a big surprise."

Well, 1990 data from the Center for Population and Development Studies of the School of Public Health, as well as the Centers for Disease Control and Prevention, reveal that life expectancy in the United States varies dramatically by county. If you were born in certain counties of Minnesota, Colorado, or Wisconsin, you would have a life expectancy of around 84 years. If you were born in one of six counties in South Dakota, your life expectancy would be 25 years fewer. If you were born in the county of Baltimore, Maryland, or our nation's capital, your life expectancy would be reduced by 22 years relative to what your life expectancy would be in certain Minnesota counties. Addressing these disparities presents a major agenda for this country.

We have to focus here on values, and those are values that we in public health and in medicine solidly share. In 1348, the Black Death hit Europe, killing 50 to 70 percent of the people in the cities. It killed off marginal labor, raised wages, increased productivity, and enhanced inventiveness; the printing press was created because the scribes had all died. So you could argue that, economically, the Black Death was the greatest thing that ever hit Europe. And it only killed 50 to 70 percent of the people.

Let me end with my favorite argument for public health, from a wonderful English physician, Eric Rose, who wrote a terrific book on preventive medicine. His book gives the humanitarian argument for why we should support public health: "It is better to be healthy than ill or dead. That is the beginning and end of the only real argument for [public health]. It suffices." ■

Barry R. Bloom, PhD, is dean of the Harvard School of Public Health.

BENCH TO

The dean of HMS outlines research challenges

HIS HAS BEEN A CELEBRATORY YEAR FOR HMS. WE HAVE TAKEN the theme "On the Threshold" as a motto for a series of events titled "Harvard Medicine at the Millennium." The banner on Building A attests grandly to our intention to make this a special year.

We have recently achieved great success in uniting our efforts in the fight against cancer, as epitomized by the successful formation and funding of the Dana-Farber/Harvard Cancer Center. We have set upon a course that will defeat this terrible plague.

I believe it is a four-legged stool that best represents the principles that guide our lives as physicians: clinical practice, teaching, research, and community service. I want to address one of these four legs: the future of research. I want to highlight the key elements that I believe are critical to our success as we enter the third millennium.

There are remarkable opportunities in basic biomedical research and an increasing need for interdisciplinary and interdepartmental initiatives. At the same time, however, the relationships of physicians to patients, of patients to clinical investigators, and of patients to their health care institutions have frayed. So, along with our unprecedented opportunities, we have a need for increased scrutiny and awareness of our compact with society.

I want to reflect on three elements of our biomedical research enterprise as we march into the twenty-first century: science and technology to biomedical bench; bench to bedside; and bedside to clinical trials.

The first of the three cultures to which I refer includes people working in the fundamental physical sciences of mathematics, physics, computational technology, and informatics. Their culture of science has traditionally held little appreciation for the kind of research that is conducted in biomedicine.

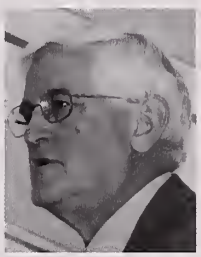
I believe it is a four-legged stool that

BEDSIDE

that lie ahead—and calls for a collaboration of disciplines to meet those challenges

The second culture consists of people who share a deep commitment to fundamental research in the life sciences, and who, in our School, tend to be particularly visible within the basic science departments in the Quadrangle. These departments have, in the past, tended to be isolated from the rest of the Harvard medical community. We have offered few basic science appointments in clinical departments. And this separation of the communities—Quad and hospitals—has led to misunderstandings and sometimes an underappreciation of each other's contributions.

The third culture consists of those physicians who often see patients during a portion of the day and teach and do research in the remainder, who reside almost entirely within our hospitals. They perform the roles of scientist and doctor, teacher and patient advocate.



JOSEPH MARTIN

Historically, these three cultures have been largely separate from one another within the Harvard and MIT scientific communities. To enhance the opportunities for research in the future, these three communities must come together in ways that have not yet succeeded in any setting with which I am familiar.

Cross-pollination between even seemingly far-flung disciplines can optimize the chance of solving problems that appear intractable from the perspective of one isolated field. Such discoveries are not simply serendipity; rather, they are the result of understanding and integrating new concepts and applying them to challenges, old or new, in another field.

As we take on the really tough problems of biological science in the new century, the integration of our efforts with advances in chemistry, physics, mathematics, and computational biology will be critical for dealing with the novel concepts that will emerge, and with the massive amounts of information that will need to be stored and manipulated. Of course, we at Harvard and MIT are very proud of the accomplishments of the Health Sciences and Technology program, which was put in place for the precise purpose of bridging science and medicine, broadly defined.

This new kind of thinking is already at work at HMS. In recognition of the extraordinary potential of using small molecules as drugs for the benefit of patients suffering from various biological disorders, we instituted, in collaboration with Harvard's Faculty of Arts and Sciences, the Institute of Chemistry and Cell Biology. Its mission is to exploit the power of combinatorial chemistry to create and define large sets of biologically active molecules. These novel molecules will allow scientists to characterize protein–protein interactions, which should lead to a better understanding of normal cellular structure and function. Most importantly, the ability to modify such interactions will aid in the identification of compounds that may have therapeutic benefits in diseases such as cancer, atherosclerosis, arthritis, Alzheimer's, and asthma, where protein–protein interactions go awry.

The second stage of transformation of our research is from bench to bedside. The imperative to find effective treatments for disease drives medical science to a great extent, and this is typically expressed in a sense of urgency to move discoveries in the quickest way possible from bench to bedside. To bridge the gulf between the Quad and the hospitals, two years ago HMS introduced a new seed grant program to encourage collaboration between basic scientists and clinical researchers at the affiliated hospitals.

My focus over the past three years as your dean has been upon building community here at HMS and realizing our full potential. This will be visibly embodied in the new research

best represents the principles that guide our lives as physicians.

building that will be constructed off Avenue Louis Pasteur. There have been other notable successes. We now have more than 40 investigators working in nine of our institutions on new models for islet cell transplantation to treat juvenile diabetes. And our newly formed Dana-Farber/Harvard Cancer Center has in the past four months submitted three major grant applications to the National Cancer Institute—in breast, prostate, and lung cancer.

The future of discovery and the ability to rapidly translate concepts into practice will, I believe, be increasingly realized within the realm of interdisciplinary work. But even as these collaborative efforts emerge, we find ourselves confronted with a challenge that has the potential to undermine many of the advances we are making.

I refer here to the link between our scientific endeavors and their applications in the clinical setting. We are all familiar with the route taken in drug discovery, in which a promising compound, identified in any one of several creative ways, must first be purified and tested in experimental animals to develop a proof of concept. If the agent has the desired or predicted effect, it is then possible to test its toxicity in animals at doses that are predicted to have therapeutic benefit. Then, and only then, are the drugs given to volunteers in Phase I trials, where the toxicity and safety of the drug are determined. Finally, the drugs are administered to patients in expensive Phase II and III clinical trials, when efficacy is tested.

The cost of bringing a single major drug to approval by the U.S. Food and Drug Administration is on the order of

MILLENNIAL BANQUET

Alumni from all classes attended a festive evening in June at the Sheraton Boston

A. Hip Replacement, the HMS student jazz band **B.** Sharan Murphy '69 and Gearge Thibault '69, past presidents af the Alumni Cauncil **C.** Jaseph Murray '43B (left), with James Jacksan '43A and his wife, Susan **D.** Dean Daniel Federman '53, banquet cohost **E.** Charles Hatem '66, current president of the Alumni Cauncil, with his wife, Barbara **F.** Alvin Paussaint, Tenley Albright '61, Jean Hurd, and Jaseph Hurd '64 **G.** Dean Jaseph Martin, banquet cahast


A


B


C

$400 to $500 million. That extraordinary expense not only adds to the cost of the drug when marketed, but also tends to limit the development of drugs for conditions that do not present a billion dollar or greater market opportunity.

The formation of the Harvard Clinical Research Institute—HCRI, as we now refer to it—is a remarkable joint effort of HMS and our hospital colleagues at Partners and CareGroup. HCRI will make our clinical investigators far more accessible to the frontiers of clinical trials.

Another exciting new initiative is a program called PASTEUR, which stands for Patient-Associated Science: Training, Education, Understanding, and Research. PASTEUR is designed to introduce medical students to the unique methods, intellectual strategies, and remarkable opportunities of patient-oriented research.

Our progress in biomedical science travels on a two-way street. For example, lessons learned in clinical trials often lead us back to the laboratory in a quest for more effective and less toxic treatments. Each stage of transition—science to bench, bench to bedside, and bedside to clinical trials—constitutes an opportunity for reinvigorating discovery in both directions.

As we stand on the threshold of this new millennium, a bold opportunity awaits us. We at HMS are poised to be one of the most important contributors in the world to reducing the pain that afflicts humankind—whether social, biological, genetic, or mental. I am proud to be given the opportunity to lead these endeavors. ■

Joseph B. Martin, MD, is dean of Harvard Medical School.


D


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PHOTO: RICHARD WOOD STUDIO

Reunion

Reports

1940

William F. Hickey '40 Festivities opened on Wednesday evening with a banquet at the Sheraton Boston. I did not attend but was informed that the food was delicious and plentiful, especially the crab cakes. Those who attended enjoyed the evening.

The following morning, we rallied at the HMS Quadrangle for Alumni Day festivities. The speakers were: R. Bruce Donoff '67, dean of the Harvard School of Dental Medicine; Barry Bloom, dean of the Harvard School of Public Health, and Joseph Martin, dean of HMS. These presentations were informative, interesting, and nicely delivered under a huge tent. The weather was cool and not too breezy. Following the speakers was a catered luncheon at big tables set out on the grass, also under the huge tent. The meal was delicious and the conviviality contagious. It was here that we really began to meet our classmates. Handshakes and even hugs were exchanged profusely.

The scene then shifted to the Faculty Room in Building A, where we met at 6:00 p.m. for cocktails followed by a delicious meal. As the evening progressed, various members of the class gave impromptu speeches and Sam Potsubay played his (in)famous harmonica. Conversations and recollections ran rife. Archie Deming called to express his regrets. This was a thoroughly pleasant day and evening for us all.

We shared a congenial light lunch in the President's Room of the Harvard Club of Boston before starting our journey home. The average attendance at each function was about 16 classmates and 15 family members. In summary, we all enjoyed a very pleasant and nostalgic reunion. Our only regret is that so few of our members were able to attend. The Class of 1948 extends its thanks to the Alumni Office for its comprehensive assistance in arranging such a wonderful occasion. ■

1945

Edward W. Friedman '45 Gradually gathering like a wave on a Cape Cod beach, the Class of '45 broke on the Quadrangle, amphitheaters, and meeting spots with Ben Landing in the lead. Then, Thursday night, some 24 hours after people had started to drift into Boston, we precipitated out en masse to occupy our own table at the Millennial Banquet hosted by Deans Joe Martin and Dan Federman, who brought us up to date on the pioneering work that HMS is doing.

Friday we had lunch under the "big top" and dinner at The Country Club, where we realized that almost 50 of the original 125 members of our class had returned to bask in the achievements of HMS and hear of the magnificent plans of the School's administration, which we warmly endorse. Dean Joe Martin honored us by attending our celebration Friday night and again underlined the importance of our class to the future of HMS. Another bright note of the evening, literally, was a beautiful and moving solo by Don Somerville of "Some Enchanted Evening."

The next day, with excellent weather, as promised, we enjoyed a relaxing lunch cruise on Boston Harbor with many landmarks on the shore pointed out in a compelling manner by Walt Jones. Where did you learn all that detailed anatomy of the harbor, Walt?

Before we drifted apart, someone expressed the brilliant idea of getting together before the next reunion—a sort of mini-reunion, endorsed by many of those present and, I know, by John Packard, whose absence was sorely felt. It was a super reunion. ■

1950

Donald Gair '50 Two-thirds of the members of the Class of '50 who arrived in September 1946 were veterans on the GI bill back from tours of service during World War II. The joy of simply being at medical school gave a glow to everything, even to areas conventionally seen as onerous. When the more advanced students patronizingly asked us how we liked histology or anatomy, anticipating groans of complaint, they were stunned by our uniformly cheery responses.

At the reunion, we enjoyed a wonderful turnout, and the three days glowed with warmth, nostalgia, and enthusiasm. The universal sentiment was that it was truly the best reunion ever, probably inspired by our gratitude for being back at the Quadrangle almost 54 years after the amazement we felt at having been able to be there in the first place.

Friday night was the official reunion banquet at the Museum of Science. The view was glorious, the ambiance radiant, and the company incomparable. Brad Patterson presided masterfully. Pat O'Meara and Adrienne Applegarth had never been to a reunion before but vowed never to miss another. The evening came to a close too soon, but lively and intense exchanges were resumed Saturday when Renée Gelman graciously hosted a soirée at her elegant home. Sheldon Levin's video reprint of movies taken at our commencement in 1950 was a sentimental highlight that was rerun at least a dozen times. Dean Joe Martin dropped by, and we warmly welcomed him. We were grateful that he took the time to join in our festivities.

The reunion report's distillation of 50 years of practice, teaching, research, and leadership positions produced many pearls and pithy observations—some bitter, some optimistic—about the current state of medicine and its prospects for the next 50 years. Slightly more than half of the class said they were optimistic—but Kurt Isselbacher quoted Voltaire: "Optimism is a mania for declaring that all is well, when things are really going badly."

Whatever equivocation we may have about the future of medicine, our consensus on the future of HMS resulted in a record $400,000 (plus or minus a few dollars) as the class gift for "The HMS '50 Scholarship Fund." This amount sets a new standard by a significant margin over preceding golden *anniversaires.* Two-thirds of the class joined in giving, either spontaneously or with the gentle solicitation of the Reunion Gift Committee: Borg, Broadaway, Coe, Egdahl, Ford, Gair, Gelman, Glimcher, Levin, Patterson, Sachs, Schwartz, Smythe, Waitzkin, Walker, and Williams.

Mel Glimcher and Renée Gelman deserve special accolades. They were the major forces behind the attainment of our ambitious goal. Evelyn Waitzkin, chairwoman emerita, provided support and guidance throughout.

A highlight of the class report was Judge Goldblatt's irreverent satire on HMS as the WGMS (world's greatest medical school). Judging from the generosity of the HMS '50 gift for scholarships, we clearly agree that we want others to continue to enjoy the gratification we've had from earning our medical degrees at Harvard. For us, it couldn't have been better! Plans for the 55th are already under way. ■

1955

Roman DeSanctis '55 The kickoff for the 45th reunion of our great Class of 1955 began with an open house at the Winchester home of Ruth and Roman DeSanctis. Seventy-two classmates and spouses were in attendance, basking in the warmth of old friendships. This warmth was aided and abetted by elegant food and ample wine.

On Thursday, several class members attended the interesting programs organized by the Alumni Council and HMS. That evening was the occasion for a very special banquet at the Sheraton Boston, sponsored by the Alumni Council and hosted by Deans Joseph Martin and Dan Federman. We were captivated by Dan's history of HMS up to the building of the Quadrangle in 1906. This was followed by a super video about HMS—yesterday and today. Many of our old professors, such as Franny Moore and Joe Murray, not only participated in the video, but also were in attendance at the dinner. We were delighted to see them again. One of the stars of the video was our own Ellie Shore, dean for faculty affairs at HMS.

Following Friday's Alumni Day program, luncheon, and class photographs, we retired to the Cliff House in Ogunquit, Maine, for a couple of glorious days. The weather was perfect. At Friday night's banquet, each of our class members rose to provide a brief autobiographical sketch. The emphasis was heavily on retirement (more than half the classmates in attendance are retired) and grandchildren.

Saturday was spent in leisurely fashion—walking the spectacular Marginal Way, antiquing, exploring the Ogunquit area, or simply reminiscing. There was a superb clambake at the Cliff House Saturday night, followed Sunday morning by a very sentimental farewell brunch. We wished for more time together.

All told, 44 members of our class participated in some phase of the reunion activities. We were honored to have with us the wives of two of our deceased classmates—Paula Adelson and Jessamy Long. Paula presented to the class Bill's last bronze sculpture, a figure of a woman that will reside in the Alumni Office.

I think I can say in all candor that the feeling was unanimous—this was a great reunion. There was spirited discussion among the attendees to the effect that we should start much earlier than we usually do in encouraging our classmates to come to the 50th, to answer the class questionnaire, and to help give what we hope will be a record 50th reunion class gift. See you at the 50th! ■

1960

Joseph Barr and Jane Schaller '60

Forty-six classmates attended part or all of our 40th reunion. Present were Azadian, Barr, Barretts (both Jack and Pete), Baughman, Bernier, Binder, Bull, Burtis, Chacko, Challoner, Cohen (Jordie), Dobrow, Farnsworth, Frank, Gelch, Green, Houle, Jamison, Kaplan, Kingsbury, Klieger, Kurland, Leder, Levin, Nesburn, Norden, Phillipps, Polk, Pollen, Radin, Raslavicius, Rickles, Rogers, Sanger, Schaller (Jane), Segel, Shirley, Smith, Steigbigel, Tevis, Thompson, Valentine, Watt, Wirtschafter, and Wurtman.

Our festivities began on Wednesday evening with drinks and a light supper at Jane Schaller's condominium. There were 52 attendees and we had a chance to catch up with each other and get the reunion off to a great start. On Thursday, many attended the various symposia at HMS before gathering at the Tavern Club for cocktails and dinner. There were 68 of us. President George Bernier read the necrology list and led us in a moment of silence for those who are no longer with us. Over gazpacho and excellent swordfish, we welcomed Vern and Madeline Caviness back to HMS '60. A special guest was Erik Erikson, who taught us gross anatomy way back in 1956! He has been transformed from a primatologist to an information specialist and is now running a biographical institute. We and all Harvard grads are in his database. His memories of HMS '60 were flawless!

On Friday, after the business meeting of the Alumni Association, a new tradition was started with the presentation of the 40th reunion gift along with the 25th and 50th gifts. Jane Schaller and Joe Barr presented our gift of more than $116,000—with 62 percent participation! The gauntlet was thrown to the Class of 1961 to see if they can break our record.

We reassembled (59 strong) at the Black Point Inn in Prout's Neck, Maine. Cocktails and dinner were enjoyed by all, and the evening was punctuated by a range of comments. For lack of a piano player, we did not relive the Second Year Show for the first time in memory. On Saturday, we went our separate ways to play golf or tennis, hike, explore, and visit malls. The evening brought a clambake. After dinner, various stories were told, highlighted by John Chacko's dissertation on how women are constructed and why men don't understand them. For a time, he seemed to be on thin ice, but he recovered nicely and received a loud ovation from the ladies present. On Sunday, we said our goodbyes after promising to reconvene in another five years. For the great Class of 1960, the reunions get ever better! ■

1965

Bruce Chabner '65 As many as 49 people—classmates and companions or spouses—attended the various events, including the reunion programs at HMS, the class dinner at the Ritz-Carlton on Friday evening, and the clambake at Jim Wallace's home on the South Shore on Saturday.

On Friday evening, we were joined by the spouses of four deceased members of the class—the late Lesley Bunim Heafitz, Terry Langer, Thomas Smith, and Michael Stewart. At the dinner on Friday evening, the classmates and companions each spoke about their years since graduation, their families, and their plans for the future, a most interesting and friendship-renewing experience. Despite myriad health problems and the challenges presented by family, work, impending retirement, and relationships, we have all survived in good spirits and are thankful for our fine education and the chance to know each other again.

We particularly appreciated the long journeys of Bill Barry (Utah), Dick Aadalen and Cecil Chally (Minnesota), Gil Omenn (Michigan), and many others, who added greatly to the weekend. We pledged to return for our 35 x 2 reunion in the year 2035. ■

1970

John A. K. Davies '70 Forty-one classmates convened to celebrate our 30th reunion, reminiscing about medical school days and discussing career changes and family developments. In addition to the Boston contingent, friends made the great effort to come from as far as Guatemala (Noel Solomons), Oregon (Kaye Browne), and North Carolina (Woody Cannon). In accordance with tradition, the first two days were occupied by events at the Quadrangle, Thursday's symposia by the faculty and the 25th reunion class, and Friday's alumni events.

Thursday evening found class members at the Millennial Banquet at the Sheraton Boston. Activities that were unique to our class began Friday evening with an elegant dinner at the Somerset Club on Beacon Hill. As throughout the weekend, the weather was accommodating, permitting a wine reception in the walled garden, with hors d'oeuvres. The dignified ambiance of the dining room, the superb service, and the delicious meal made for a most enjoyable evening. We are grateful to Dr. and Mrs. Peter Black for hosting the class.

The weekend featured two events on Cape Cod, thanks to the hospitality of classmates. Walter Rymzo opened his home near the beach in West Hyannis for a clambake, preceded by delicious snacks, and concluding with friendly conversations around the tables under the tent. The light southwest wind, brilliant sun, warm temperature, and gentle waves along the beach gave us an early taste of summer in New England.

The following day, Joan and Fred Goldberg entertained a select group of classmates for a sumptuous brunch at their home in Falmouth with delicious fish, quiches, ricottas, and frittatas. Again the weather cooperated fully to make the reunion finale a resounding success.

The class is indebted again to Joan Goldberg and Peter Gross for editing our 30th reunion report. We are grateful also for the guidance and assistance provided by the Alumni Office, particularly Jean Hurd, ensuring the success of our reunion. ■

1975

Henry Lerner '75 Although it was our 25th reunion, it was really 29 years ago, orientation week of our first year at HMS, that we of the Class of 1975 met each other for the first time. Therefore it was with much curiosity and excitement that we came back to HMS to see classmates many of us had not seen since graduation. Would we recognize people? What was everybody doing? Were our classmates where they thought they'd be? Were we where we thought we'd be?

Our first get-together was on Thursday morning at the Class Symposium. Several of our classmates spoke about their interests and accomplishments over the last 25 years. Then at lunch we got our first good look at each other. Sometimes we had to sneak a quick glance at a name tag to make sure the middle-aged adult in front of us was the person we thought he or she was. But usually the smile and the voice gave them away, even if appearances had changed (ever so slightly). Perhaps the nicest surprise was how easy it was to talk to old friends again.

The Class Symposium covered an extraordinarily wide range of topics, everything from pure science to public health, from medical economics to personal reflections on the experience of being a physician. It was a wonderful showcase of where our class has been. It was easy to be proud of the accomplishments and passion of these members of HMS '75.

That evening was the Millennial Banquet, which celebrated the history of HMS and the contribution of the HMS Alumni Association. The sheer number of alumni present was impressive. The evening provided an opportunity to see not only our classmates, but also fellow alumni from other classes and even other generations. The film shown about HMS, with its wonderful interview of Dr. Francis Moore, was informative and poignant. For most of us, the evening accomplished its function of providing us with a sense of where HMS is in the year 2000 and of showing us how we of the Class of 1975 fit into the bigger picture of a venerable ongoing tradition.

But our real get-together was the class dinner Friday night at the MEC Atrium on the medical school campus. There we had a chance over drinks to renew old acquaintances and catch up on families and careers. The "open mike" forum allowed various class members to share experiences and relate stories about classmates. Perhaps the highlights were the stories about Roberto Palma's first meeting with Rene Casavantes and an oral obituary by Gary Weil of our deeply missed classmate, the late Mark Visner. Saturday brought a perfect, hot, Boston summer day for the class clambake in Dedham. The weather, the food, the activities, and the chance to once again connect with classmates very pleasantly rounded out the weekend.

What's the bottom line? It is perhaps best gleaned from reviewing our class book: (1) our accomplishments proudly rank with those of other HMS classes, yet in almost every yearbook statement there is the clear acknowledgment that family comes first; (2) most members of our class are still happy to be in medicine and would encourage young people to consider a career in health care, albeit with their eyes open; and (3) most importantly, our classmates say that they are happy and satisfied in their personal lives and still feel proud and honored to be able to serve their patients. ■

1980

Thomas J. Cavin '80 Joanne Wilkinson and her husband, Joe Dorsey '64, were the gracious hosts of the Saturday reunion gathering of the Class of 1980. Their house is southwest of Boston, in an idyllic pastoral setting, complete with goats and dogs.

Lewis First made the rounds, and he and I reacquainted ourselves. Somehow, even though we both live in Burlington, Vermont, we rarely see one another.

Andy Caster is wiping out nearsightedness in Los Angeles with LASIK, and Steve Hyman is looking after the nation's mental health as head of the mental health branch of the National Institutes of Health. Denny Lund and family have moved to Madison, Wisconsin, where he heads pediatric surgery at the University of Wisconsin. Marcus Thygeson is working on the development of proper health care administration, and when he figures it out, I hope he will let us know; my prayers are with him.

There were many others in attendance also, doing fascinating things with their lives, and some others like me, working in the trenches, seeing patients. We are probably a typical class from HMS, with an interesting mix of diverse achievers and doers.

The lobster, chicken, and corn were gone by the end of the beautifully clear day, and I was reminded why I had such a stimulating time at HMS: it was in large part due to such wonderful classmates. ■

1985

Janey Wiggs '85 The 15th reunion commenced with a small, relaxed dinner at the Harvard Club on Commonwealth Avenue. Mike Myers headed the table and led the lively discussion. Libby Stewart, Rich Waldmann, Steve Mirabello, Earl Potts, Claire Bloom, Steve Wintermeyer, and Ginat Wintermeyer Mirowski contributed amusing memories of HMS life.

The next day, Libby Stewart and her husband, Paul Zellweger, hosted a clambake at their beautiful Cambridge home. Paul Cotran, Susan Zweizig (and new baby!), Dale Oates, Joan Butterton, Elena Yanushpolsky, Linda Starace-Colabella, and Jon Sillman joined the group from Friday evening for more reminiscence and current life comparison. A good time was had by all (including all those eight-, nine-, and ten-year-olds!) and we look forward to seeing more classmates at the 20th! ■

1990

Eileen Reynolds '90 A small crowd from the Class of 1990 celebrated our tenth reunion. John Nash, who has a busy orthopedics practice in Tennessee, represented us at the Millennial Banquet on Thursday night.

On Friday, about 20 of us gathered at the Table of Contents restaurant. We had the place to ourselves, and so had drinks and dinner in relative intimacy. In attendance were many practicing in the Boston area, including Christine Albert (cardiology at Massachusetts General Hospital), David Altschuler (endocrinology at MGH), Ernie Paul Barrette (general internal medicine at MGH), Ben Davis (infectious diseases at MGH), Dan Deschler (head and neck surgery at the Massachusetts Eye and Ear Infirmary), Ted Koh (GI at MGH), Margo McGehee-Kelly (community-based primary care), Tiron Pechet (private practice in MRI), Maria Pelidis (pediatric hematology-oncology at Tufts), Ben Scheindlin (private practice in pediatrics), and others. Andy Kanter flew in from Chicago; he promises he will soon leave the world of high-tech to return to his roots in international medicine. David Jaffe came up for the weekend from New York.

On Saturday, we had perfect weather for a picnic at the home of Tiron Pechet's parents in Cambridge. Their grounds are beautiful; we sat in the shade and watched the little crowd of kids play in the fountain (oops!) and with Silver, the clown.

Many of the same Friday-nighters came again on Saturday; we were also joined by Judy Epstein, who came in from Maryland, and Jennifer Levin Carter, who brought her husband, Bill (HMS '89), and their four children (three girls and the six-month-old Jacob). John and Susan Nash, spending a special weekend without their four little ones, joined in. Hope to see you all at the next reunion! ■

1995

Sybil Cineas '95 A fun time was had by all who attended the fifth year HMS reunion dinner, held at the Baytower Room. Most attending the event were from the Boston area, with the exception of John McHugh, who came all the way from San Diego.

Among those present were Tamara Callahan; Sybil Cineas; Ashwin Deshmukh and his wife, Julie; Michelle Finkel; Matt Hutter and his wife, Amy; Kath McHugh and her husband, Joseph Marine; Trevena Moore; Kathy Niknejad; Chan Raut; and Sue Wong and Larry Beck.

Over cocktails in the dining area overlooking a fabulous view of the Faneuil Hall area and the Big Dig, we got a chance to catch up with each other. We could not believe that it had already been five years since graduation. Highlights included Trevena's recent engagement to Warren, an attending at Boston Medical Center; Kathy Niknejad's recent wedding and honeymoon; and Ashwin and Julie's announcement that they are expecting a baby.

Following a delicious meal we gathered for pictures and were entertained by Lauren Beck, Sue and Larry's daughter, who taught us all how to stick out our tongues. Kim Stegmaier and her fiancé arrived just in time to join us for coffee and dessert. Feeling stuffed, we wrapped up the evening with the promise to keep in touch with each other until our tenth reunion. ■

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